



**ENVIRONMENT CANTERBURY
(CANTERBURY REGIONAL COUNCIL)**

Decision by Independent Hearings Commissioner on an application by Cloud Ocean Water Limited to change the conditions of resource consent CRC182813 as to: (1) notification; and (2) the substantive application to change the conditions of that resource consent: Application CRC192153

Richard Fowler QC

<http://richardfowler.co.nz>

Preliminary

1. This is an application by Cloud Ocean Water Limited to change the conditions of an existing resource consent CRC182813 to take and use groundwater. The existing resource consent authorises taking of groundwater from bore M35/1294 installed to 33.1 metres deep at the subject site at 20 Station Road, Belfast (legal description Part Lot 2 DP35966) being approximately 2.3 hectares. That existing resource consent authorises abstraction at a rate not exceeding 50 litres per second with volumes not exceeding 4,320 cubic metres per day and 1,576,800 cubic metres per year. That existing consent expires on 30 April 2032.
2. The change that is sought does not affect the rates or volumes of abstraction. However, what is to change is that a new deep bore, BX24/1577, is to be utilised that is installed to 186 metres deep. This is to be an additional bore, but the existing extraction rates and volumes will apply to the combined abstraction from both bores.
3. Because the application is for a change of conditions, s.127 of the Resource Management Act 1991 ("RMA") applies, subject to any argument that sometimes arises with such applications as to whether the proposed changes actually put the proposal beyond the scope of the existing resource consent, and therefore requiring a fresh application. I will return to that issue in a moment.
4. Assuming there is no 'beyond scope' problem, s.127(3) and (4) would apply such that the status of the activity (i.e. the change of conditions) is a discretionary activity. Since the existing consent was granted on a non-notified basis the mandatory requirement to consider submitters on the original application who may be affected by the change does not arise.
5. Returning to the issue of scope, since the only difference arising from the proposed changed conditions is the addition and greater depth of the new bore, if those do not result in a fundamentally different activity, or one having materially different adverse effects, or one that seeks to expand or extend the original activity, then the application will be within scope and therefore must be processed under s.127.
6. For reasons I traverse later, I do not consider the proposed change of conditions renders the application beyond the scope of the existing resource consent.

Notification

7. The task that then arises is to determine the notification position.
8. It is now well established that there is a statutory trail to be followed with a series of steps through ss.95A and 95B. Those steps will now be addressed.

9. *Step 1: Mandatory public notification in certain circumstances.* The criteria for a “yes” answer are set out in s.95A(3) and none are applicable here.
10. *Step 2: If not required by Step 1, public notification precluded in certain circumstances.* The criteria for determining whether public notification is precluded are set out in s.95A(5) and none are applicable here.
11. *Step 3: If not precluded by Step 2, public notification required in certain circumstances.* The criteria for determining whether public notification is required under this step are set out in s.95A(8) and those are as follows:
 - (a) *The application is for a resource consent for one or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification.*
 - (b) *The consent authority decides, in accordance with s.95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.”*
12. For the reasons addressed later in this decision, I am satisfied that the activity (i.e. the change of conditions) will not have or is not likely to have adverse effects on the environment that are more than minor.
13. *Step 4: Public notification in special circumstances.* The question of what amounts to “special circumstances” under s.95A(9) has been the subject of some discussion in the case law.
14. In *Peninsula Watchdog Group (Inc) v Minister of Energy* [1996] 2NZLR 529 (CA) at 8 a special circumstance was stated to be “*one outside the common run of things, one which..... is exceptional, abnormal or unusual, but something less than extraordinary or unique.*” In *Bayley v Manukau City Council* [1998] NZRMA 396 Salmon J. observed that if the district plan specifically envisages what is proposed, it cannot be described as being out of the ordinary and giving rise to special circumstances. Further, where no adverse effects are likely to arise from an activity, it was held in *Fullers Group Limited v Auckland Regional Council* [1999] NZRMA 439 (CA) at [33] that it is unlikely that special circumstances requiring notification can be justified.
15. Perhaps the most useful commentary on the special circumstances public notification trigger can be found in *Murray v Whakatane District Council* [1997] NZRMA 433 (HC) where, after then noting other provisions guiding notification as the RMA then stood and then noting the category of applications where the principles to be applied are clear and non-contentious as they generally will be if settled by a district plan, or if the adverse effects are minor, Elias J. then continued:

"Where a consent does not fit within that general policy, it may be seen to be unusual. While no doubt it is not necessary for the consent authority to turn its mind to the desirability of notification in every case where there are indications that the case is out of the ordinary because not falling within the general policy, it will be necessary to consider the discretion"

16. Interestingly, public interest is not excluded in *Murray* as a trigger for "special circumstances", but that appears to be confined to where there is some kind of gap in the district plan engagement on the particular application, or an information gap in what has or can be provided. More recently in *Urban Auckland v Auckland Council* [2015] NZHC 1382 at [137] the court held that while in agreement with *Murray* that public interest could be a contributing factor, simple concern on the part of an interested party could not of itself be said to give rise to special circumstances.
17. In *Associated Churches of Christ Church Extension and Property Trust Board v Auckland Council* [2014] NZHC 3405 at [70] the court identified that the purpose for which notification is undertaken can be important and observed that the essential question for the council in that case was *"whether notification would be likely to result in the council receiving further information relevant to the issues for determination on the substantive application."*
18. Apparently there are live judicial review proceedings currently before the High Court in respect of the existing resource consent. The proposition that the mere fact that someone has issued judicial review proceedings should trigger special circumstances notification is not an attractive one. In any event it would appear to be defeated in this instance by the "McGuire" principle, namely that the exercise of a statutory power of the council must be accepted as lawful unless and until set aside: *McGuire v Hastings District Council* [2000] 1NZLR 679.
19. This is not an application that somehow falls into a gap in the planning instruments, nor is it a case where there is said to be a lack of information. The only possible factor for consideration as a special circumstance is the fact that a second bore is to be added penetrating to a depth of over five times the depth of the already consented one. But on an examination of the evidence referred to later in this decision, it is apparent that with a condition attached that would address any cross-contamination issue, the effects would be no different to those of the existing consented abstraction.
20. In those circumstances I do not consider any special circumstances exist that warrant public notification under Step 4.
21. I turn to s.95B with its similar tier of steps relative to the possibility of limited notification.

22. *Step 1: Certain affected groups and affected persons must be notified.* There are no protected customary rights groups or customary marine title groups affected by the proposed activity under s.95B(2) and the proposed activity is not on or adjacent to land within the meaning of s.95B(3).
23. *Step 2: If not required by Step 1, limited notification precluded in certain circumstances.* Neither of the criteria in s.95B(6) are met and therefore limited notification is not precluded under Step 2.
24. *Step 3: If not precluded by Step 2, certain other affected persons must be notified.* This is not a boundary activity or an activity prescribed under s.360H(1)(b). That leaves s.95B(8) which in turn cross refers to s.95E and the test for an "affected person" being "if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor)". For the reasons referred to later where I conclude that the adverse effects of the proposed activity are less than minor, there is no affected person within the meaning of s.95E or Step 3.
25. *Step 4: Further notification in special circumstances.* s.95B(10) provides for the consent authority to:

"determine whether special circumstances exist in relation to the application that warrant notification of the application to any other persons not already determined to eligible for limited notification under this section (excluding persons assessed under s.94E as not being affected persons)....."

I have already determined that there are no affected persons within the meaning of s.95E and that there are no special circumstances attributable to a gap in district plan engagement, or lack of information, or the undetermined application for judicial review. More particularly I have considered whether with the additional bore and its greater depth triggers a special circumstance consideration at paras 13-20 above and have determined that it does not. Accordingly there are no special circumstances that warrant limited notification.

26. It follows from the above that the application can proceed on a non-notified basis.
27. Accordingly I now turn to consider the substantive application itself.

The site and the locality

28. The site is located within the Christchurch / West Melton groundwater allocation zone as defined by planning maps of the Land and Water Regional Plan (LWRP). This zone is currently fully allocated.

29. The northern half of the site is located within the Christchurch groundwater protection zone which provides for restrictions on land uses and discharges in order to protect Christchurch's groundwater supply.
30. The subject site is located over a confined gravel aquifer system. The nearest natural water body is Kaputone Creek which adjoins the subject site along its north-eastern boundary and is located approximately 14 metres from the existing consented bore and 24 metres from the new one.
31. The site is approximately 6.2 kilometres west from the coast and the surrounding land uses are predominantly industrial and residential.
32. The closest community drinking water supply groundwater protection zone is located approximately 524 metres to the northwest of the site.
33. The site is located within a "Silent File" area but is not located within a statutory acknowledgement area or Rūnanga sensitive area.
34. There are 544 wells recorded on Environment Canterbury's wells database within a 2 kilometre radius of the new bore. Of these, 199 bores are listed as active and 7 bores are listed as proposed. The remainder are recorded as not used, capped, filled or sealed. The majority of the active bores are used for a range of purposes including community supply, domestic supply, commercial and industrial purposes, water level observation, geotechnical observation, stock water supply and irrigation.

Actual and potential effects

35. As previously noted, this application does not seek to change the abstraction rates and volumes or the use for which the water is abstracted. The change is the addition of a second bore to a much greater depth. It is the actual and potential effects of this change that need to be addressed.
36. In my view the possible effects can be categorised as follows:
 - a. Effects from salt water intrusion;
 - b. Effect on aquifer stability;
 - c. Effects on surrounding groundwater users (including potential cumulative effects);
 - d. Effects on surface water resources;
 - e. Effects on water quality as a result of cross connection;
 - f. Effects on tangata whenua values.

Each of these needs to be assessed.

Effect from salt water intrusion

37. The volumes and rates are not to be changed so the issue here is whether the new bore introduces any fresh risk of salt water intrusion.
38. In this regard it is noted that the change of abstraction point does not occur within 2 kilometres of the coast which is the approximate threshold boundary for any risk to arise, and the expert evidence from both the applicant and the council conforms with the conclusion that the new abstraction is highly unlikely to contribute to any landward migration of the salt water interface.

Effect on aquifer stability

39. The borelogs of wells within the area confirm that the aquifers in the vicinity are predominantly gravel based and therefore unlikely to consolidate as a result of abstraction. Accordingly aquifer subsidence is unlikely to occur and there will be no effect on aquifer stability.

Effects on surrounding groundwater users (including potential cumulative effects)

40. As is well known, the abstraction of ground-water creates a draw down cone that extends laterally from the pumping bore, and which may result in a lowering of groundwater levels in neighbouring bores.
41. Schedule 12 of the LWRP addresses the cumulative effect of well interference on neighbouring bores by establishing a threshold of an acceptable effect.
42. From both modelling done by the applicant and more conservative modelling on behalf of the council together with pumping tests carried out, the evidence all points to the draw down effects being less than minor, and certainly within the acceptable threshold in Schedule 12 of the LWRP. Accordingly I consider that the effect of the change on the surrounding groundwater users will be less than minor.
43. Of course that does not necessarily address the cumulative effects of taking groundwater over time.
44. Given the lack of response shown in the overlying system during the relatively protracted aquifer test, a change of the pressure gradient in the aquifer is unlikely. In any event Condition 7 of the existing consent provides for access to the consented bore for the purposes of water level monitoring, and this would enable any long term changes in water level that could result in pressure reversal to be monitored.
45. Gradient reversal (i.e. the scenario whereby the deeper bore affects shallower bores) is not expected occur at all on the technical evidence. However, the reporting officer has nonetheless advocated a precautionary approach on this

issue with the addition of a condition that would enable ongoing monitoring of water level, temperature, and conductivity in the new bore. This is suggested out of an abundance of caution because even if gradient reversal were to occur, this would not in itself necessarily result in an adverse effect on other users of the resource.

46. Modelling undertaken for Christchurch City Council has shown *"that there will be adequate available draw down for existing and future CCC bores"*. The expert evidence of both the applicant and the Council appears to be in conformity that none of the particularised outcomes for "determinands" in the National Environment Standards for Sources of Human Drinking Water are triggered or risked. Of course care should be taken concerning this issue in so far as I am unable to take into account effects on possible future and as yet unconsented applications that do not form part of the existing environment.
47. I conclude that any cumulative effects of the change of conditions proposed on other groundwater users to be less than minor.

Effects on surface water resources

48. The abstraction of groundwater near a surface water body can deplete surface flow in just the same way as a direct take from the surface water body itself – depending of course on the extent of hydraulic connection.
49. However, in this case the nearest surface water body is the Kaputone Creek, and aquifer testing of the proposed new bore demonstrates that surface water flows of that water body are not affected.
50. The expert evidence is that if water is abstracted preferentially from the deep bore rather than the shallow bore, any effects on surface water bodies will be reduced compared with any effects of pumping from the shallower bore. This is because any abstraction from the deep bore will require a corresponding reduction in abstraction from the existing shallow bore.
51. I conclude that the potential stream depletion or other surface water resources effects from the change of conditions is less than minor.

Effects on water quality as a result of cross connection

52. Perhaps the effect that requires the greatest scrutiny is the possibility from water from either bore contaminating the other by way of a cross connection.
53. In this regard it is significant to note that a requirement for effective back-flow prevention is not a current condition applicable to the consented bore and in so far as cross connection is a potential effect a backflow prevention device would need to be a required condition.

54. For the same reason, wellhead security is a relevant consideration with regard to possible cross connection, although the existing resource consent does contain conditions that already address this.
55. So what is the position regarding possible cross-connection?
56. The technical evidence provided with the s.42A report reveals that to the west of the Christchurch urban area and towards the Waimakariri River, a shallow unconfined aquifer is found in permeable gravel strata. Groundwater west of Christchurch is predominantly sourced from rainfall and from the Waimakariri River which loses water to adjacent gravel aquifers, which in turn feed the coastal confined aquifer system.
57. The lithology of the coastal confined aquifer system plains is made up of permeable gravel strata interbedded with fine grained sediments. The more permeable gravel strata was deposited by rivers during glacial periods and was subsequently reworked during milder interglacial periods. Layers with lesser amounts of fine grained sediment tend to act as aquifers, while the layers containing fine grained sediments such as clays, silts and sand act as confining layers or aquitards. The presence of confining aquitards allows pressurisation of the aquifers and there is an upward pressure gradient from deeper aquifers to shallower.
58. A number of confined aquifers have been identified under the Christchurch area. The present consented bore M25/1294 is screened in the Wainoni aquifer (with at least another 3 confined aquifers above it). In the case of testing well BX24/1557, negligible to no effects on any other well were observed despite a relatively long duration test, and a number of observation wells at various depths being monitored. The lack of drawdowns reinforces the conclusion that there is significant confinement of the Wainoni aquifer in this location.
59. On account of the nature of the groundwater system, considering both pressure and structure, the depth at which the water is to be taken (from the 4th confined aquifer) the expert advice concludes that the risk of pressure reversal between the deeper aquifers and the shallow aquifer is low and unlikely to materialise.
60. Nonetheless, conditions requiring backflow prevention will block a possible cross contamination pathway. It should also be noted that the system is still managed within a single allocation limit that comprises the Christchurch West Melton groundwater allocation zone.
61. Accordingly I conclude that subject to conditions addressing backflow prevention and cross connection, any effect of cross connection on water quality as a result of the proposed change will be less than minor.

Effects on tangata whenua values

62. The application site is within the rohe of Nga Rūnanga o Tūāhuriri. Notwithstanding the Silent File encompassing the property containing the bores, the rūnanga had no concerns with the original application for the existing consented bore, provided the usual accidental discovery protocols were included in the conditions of consent, which they were.
63. However, Tūāhuriri Rūnanga have advised that they are opposed to the present application and the existing activity which they consider to be against the policies of the Mahaanui Iwi Management Plan, because it allows commercial exploitation of a Wāhi Taonga resource and would entrench the notion of freshwater as an unlimited utility.
64. However, the difficulty with this is that these concerns relate more to the effects arising from the grant of the original consent, because of course they relate to the allocation and use of the water. These cannot be matters in issue arising from a change of conditions.
65. Accordingly I consider that the effect of the change of conditions will be less than minor on Nga Rūnanga o Tūāhuriri and tangata whenua values.

The applicable planning law

66. The statutory avenue is well known and should not be the subject of any serious controversy. s.127(3)(b) applies, and the application must be assessed solely against the actual and potential effects that arise from the change in conditions proposed and as a discretionary activity. That is turn leads, via s.104, to the relevant planning instruments. There are several instruments to be considered and they should be addressed in their hierarchical sequence.
67. The National Policy Statement for Freshwater Management 2017 directs regional councils, in consultation with their communities, to set objectives for the state of fresh water bodies in their regions and to set limits of resource use to meet the objectives. Since this application is only to add a deeper bore to an existing consent without any change in the rate of take and volumes authorised, and if all actual or potential effects are less than minor, it cannot be said that the proposed change is inconsistent with these objectives and policies.
68. The National Environment Standard for Sources of Human Drinking Water contain two regulations of interest, namely regulations 7(1) and 8(1), which essentially prevent a regional council from granting a water permit for an activity upstream of an abstraction point that produces or risks particularised outcomes of “determinands” in the drinking water.
69. The nearest registered community supply wells are owned by the Christchurch City Council and are located approximately 915 metres, with protection zones

that extend to approximately 524 metres, to the northwest of the site. For the reasons indicated above in para 46 it can be safely concluded that those regulations would not prevent the grant of consent by reason of either of the trigger outcomes in those two regulations.

70. The Canterbury Regional Policy Statement 2013 does set out a number of objectives, policies and methods to address significant resource management issues facing the Canterbury region. Of relevance to applications of this type would be Objectives 7.2.1 (Sustainable Management of Freshwater) and 7.2.4 (Integrated Management of Freshwater Resources) together with Policies 7.3.4 (Water Quantity), 7.3.6 (Freshwater Quality) and 7.3.8 (Efficient Allocation and Use of Freshwater).
71. However, since this application is solely to add an additional and deeper bore, and there is no proposed change in the overall rates or volumes of take, and most significantly because the actual and potential effects of the proposed change are less than minor, the proposal appears to be consistent with these objectives and policies.
72. The LWRP unsurprisingly is the planning instrument of most direct reference in terms of detail.
73. There are no specific policies in the LWRP that relate to a change of or addition to an abstraction point. However, Policy 4.59 is of direct interest and provides as follows:

"The direct cumulative interference effect from new groundwater takes on existing groundwater takes shall not exceed the acceptable threshold criteria described in Schedule 12, unless it can be demonstrated that there will be no more than minimal adverse effects on the yield of existing adequately penetrating bores."
74. Schedule 12 of the LWRP in turn sets the following thresholds of acceptable effects on well interference for neighbouring bores by providing for:
 - a. Establishment of the available drawdown in a bore based on the bore construction, configuration and water levels;
 - b. The protection of 80% of the available drawdown in a bore to allow for abstraction from that bore to occur; and
 - c. Allowing up to 20% of the available drawdown to be interfered with by surrounding pumping (within 2km) which consists of:
 - i. The effect existing pumping of surrounding bores; plus
 - ii. The direct effect of any abstraction proposed as part of a resource consent application.
75. As outlined earlier, both the modelling and the pumping tests demonstrated that any drawdown effects on neighbouring wells, to the extent that they are

measurable at all, are less than minor and are well within the acceptable thresholds of Schedule 12.

76. For these reasons the proposal would be consistent with the LWRP or, to put the analysis another way, there are no actual or potential effects that would be disenabling to the application for change of conditions vis-à-vis the LWRP.

Drawing the threads together

77. As will be evident from the above analysis, I have found that for the purposes of the notification decision the actual and potential adverse effects of the application to change the conditions will be less than minor. I have also found that there are no special circumstances within the meaning of ss.95A or 95B that should trigger either public or limited notification.
78. The logical, but procedurally rather abrupt outcome of a decision that no notification of any kind is required, is that the consent authority can proceed directly to making the substantive decision.
79. The observations as to actual or potential effects in this application for a change of conditions are directly applicable to the substantive decision. As I have already discussed, in my view the only issues of any real controversy are those associated with the fact of the addition of a second and deeper bore and any question of cross connection / contamination or different drawdown effects from reaching into a deeper aquifer depth. However the evidence is that if there are any such adverse effects, they are less than minor. Although the risk of incurring them is nil or minimal on a precautionary approach, their unlikelihood can be further buttressed with conditions as to:
- a. minimum screening depth of the new bore reflecting the current screen installation of 178 metres below ground level;
 - b. monitoring of water level, temperature and conductivity in the new bore;
 - c. backflow preventer installation.
80. Considering the effects analysis in terms of the planning instruments and as an application for a discretionary activity the application is consistent with those instruments and they would enable the application for change of conditions to be granted.

Decision

81. For the above reasons, the application of the statutory criteria directs that the application for a change of resource consent conditions should be granted, but on the conditions set out as annexed.

Commentary on conditions

82. It is appropriate to add conditions to address the matters touched on at para 79 above. Accordingly there will be conditions that require certain measurements, monitoring and reporting starting prior to the taking of water from BX24/1557, and for the installation of an effective backflow prevention device (along with suitable testing and reporting and a minimum depth for abstraction.)
83. The conditions have been fixed accordingly.

Dated: 12 December 2018



.....
R.J.B. Fowler QC
Hearings Commissioner

Annexure

1	<p>Water may be taken only from:</p> <ul style="list-style-type: none"> a. bore M35/1294, 203 millimetres diameter and 33.1 metres deep, at map reference NZTM 2000 1570829 mE - 5189404 mN; and b. bore BX24/1577, 460 millimetres diameter and 186 metres deep, at map reference NZTM 2000 1570842 mE - 5189382 mN.
2	<p>Water may be taken from the bores specified in condition 1 at a combined rate not exceeding 50 litres per second, with a combined volume not exceeding:</p> <ul style="list-style-type: none"> a. 4,320 cubic metres per day; and b. 1,576,800 cubic metres between 01 July and the following 30 June.
3	<p>The depth at which water is drawn into bore BX24/1577 shall not be less than 178 metres below ground level.</p>
4	<p>Water shall only be used for commercial water bottling operations.</p>
5	<p>Prior to the taking of water from bore BX24/1577 in terms of this permit, the consent holder shall ensure that for both bores M35/1294 and BX24/1577:</p> <ul style="list-style-type: none"> a. An effective backflow prevention device is installed and operated within the pump outlet plumbing or within the mainline to prevent the backflow of contaminants into the water source; and b. The backflow prevention device is tested at the time of installation and annually thereafter by a suitably qualified or certified person in accordance with Canterbury Regional Council approved test methods for the device used; and c. The test report is provided to the Canterbury Regional Council Attention Regional Leader - Monitoring and Compliance, within two weeks of each inspection.
6	<p>The consent holder shall, before the first exercise of this consent, install an easily accessible straight pipe(s), with no fittings or obstructions that may create turbulent flow conditions, of a length at least 15 times the diameter of the pipe, as part of the pump outlet plumbing or within the mainline distribution system.</p>
7	<p>The consent holder shall before the first exercise of this consent:</p> <ul style="list-style-type: none"> a. <ul style="list-style-type: none"> i. install a water meter(s) that has an international accreditation or equivalent New Zealand calibration endorsement, and has pulse output, suitable for use with an electronic recording device, which will measure the rate and the volume of water taken to within an accuracy of plus or

	<p>minus five percent as part of the pump outlet plumbing, or within the mainline distribution system, at a location(s) that will ensure the total take of water is measured; and</p> <ul style="list-style-type: none"> ii. install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 60minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (b)(i) and (b)(ii), or which is telemetered, as specified in clause (b)(iii). <p>b. The recording device(s) shall:</p> <ul style="list-style-type: none"> i. be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and ii. store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; and iii. shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. No data in the recording device(s) shall be deliberately changed or deleted. <p>c. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</p> <p>d. The water meter and recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.</p> <p>All practicable measures shall be taken to ensure that the water meter and recording device(s) are fully functional at all times.</p>
8	<p>Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:</p> <ul style="list-style-type: none"> a. The measuring and recording device(s) has been installed in accordance with the manufacturer's specifications; and b. Data from the recording device(s) can be readily accessed and/or retrieved in accordance with these conditions
9	<p>Access to allow water level measurements to be taken in the bore(s) shall be established, and maintained, via a bung and socket with a</p>

	<p>minimum diameter of 20 millimetres installed in the bore casing or headworks.</p>
10	<p>Prior to the taking of water from bore BX24/1577 in terms of this permit, the consent holder shall:</p> <p>a. measure the following:</p> <ul style="list-style-type: none"> i. the water level in the bore; ii. the temperature of water within, or abstracted from the bore to the nearest 0.1 degrees Celcius; iii. the conductivity of water within, or abstracted from the bore; <p>b. take measurements of the specified parameters at an interval not greater than 15 minutes;</p> <p>c. have the capacity to store the logged data for a minimum period of 12 months;</p> <p>d. inspect the measuring equipment at least once per month to ensure that the water level, temperature, and conductivity is being measured and recorded.</p> <p>All measurements shall be provided to the Canterbury Regional Council: Attn: Regional Manager, RMA Monitoring and Compliance, annually during the month of June, or when requested.</p>
11	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of this consent.</p>