

Annexure 6: Schedule 10A.4

Schedule 10A.4 (Methodology for calculating assessed actual usage for surface-water and connected ground water takes)

Overview

[1] In this section we provide an overview of Schedule 10A.4 and the amendments that are proposed and set out in the 12th JWS¹ and supported by all of the experts who participated in joint witness conferences on this topic.

[2] The notified version of the Schedule was strongly opposed by parties/submitters as the effect of its provisions is to reduce the volume of water historically taken and used – which is not its intended function.²

[3] The 12th JWS version provides for an application to be made for a replacement permit as a controlled activity. This is subject to the application demonstrating that the rate of take and daily, monthly and annual volumes of water applied for is no more than the maximum rate of take and volumes determined in accordance with Schedule 10A.4 and based on water meter data recorded up to 30 June 2020.³

[4] The Schedule provides for primary sector irrigation, community water supplies, and hydro-electricity generation a simple, objective and certain methodology allowing for a low-cost consent process for ensuring that the rate of

¹ 12th JWS dated 12 July 2021.

² De Pelsemaecker, EiC at [377]-[411].

³ Presentation by Expert Witnesses For Environment Court dated 26 May 2021: Edited version of Item 4: When can I apply under the controlled activity pathway?

take and volume limits allocated in replacement consents do not exceed consented allocations under the existing permits as well as reflecting historical use.⁴

Amendments to the notified version

[5] The notified version of the Schedule was based on the consideration of five years of data (1 July 2012 – 30 June 2017), the average of the maximum rate of take in each year, the averages of the maximum daily and monthly volumes in each year and the average of the annual volumes.

[6] A range of concerns were raised about the Schedule's proposed use of averages. These were that the data period analysed was not representative of a 90 percentile (9 out of 10) dry year, that the use of average maximum rates and volumes did not reflect actual use and that if these average measures were adopted, applicants for resource consent would be left with less water than needed in high demand years.

[7] Responding to these concerns, during expert conferencing, a series of amendments to the notified version were recommended. These are:

- for the 1 July 2012 – 30 June 2017 date range to be amended to include all available water years (1 July – 30 June) up to 30 June 2020;
- for maximum rates of takes and volumes to be used instead of average maximums;
- for values above the current consent or permit limit to be adjusted down to that limit; and
- for data spikes to be removed from primary sector irrigation records.

[8] These changes are incorporated in the 12th JWS with the experts noting that the methodologies for adjusting down measurements deviating from the general

⁴ Presentation by Expert Witnesses For Environment Court dated 26 May 2021: Edited version of Purpose and principle of Schedule 10A.4.

pattern of taking did not apply to community water supplies or hydro-electricity generation.

[9] If a water meter was installed and the applicant for a replacement permit or consent sought to use water data recorded post 30 June 2020 for determining historical use, the application would need to be processed under the restricted discretionary activity rule. Likewise, if the applicant sought that the Regional Council use the Aqualinc Guidelines 2017, gauging or synthetic flow data in the assessment of their application for determining historical use, this would also need to be considered under the restricted discretionary activity pathway.

What is a valid record and should there be a process for dealing with invalid records?

[10] Initially, the experts agreed that water meter records that had been through the verification process under the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (amended in 2020) are valid.⁵ Conversely, if an applicant sought to use non-verified data, this data could be considered under the matters of discretion in the restricted discretionary activity pathway.⁶

[11] Later, they modified their position, agreeing that there was no need in the Schedule to determine whether a water meter record was valid or not as imposing a validity test for data would create an unnecessary barrier for the controlled activity pathway for applicants with less than perfect records.⁷ Instead, there was the alternative restricted discretionary activity pathway to apply in this situation. And as well, given the Schedule's methodology for excluding atypical data from irrigation records, there was a relatively lower risk of higher rates and volumes being included in the rate of take and volume calculations.

⁵ 1st JWS dated 24/25 March 2021.

⁶ 1st JWS dated 24/25 March 2021 at [24]-[26].

⁷ 4th JWS Planners Schedule 10A.4 dated 7/8 April 2021.

Should the Aqualinc Guidelines be referred to in the Schedule?

[12] The experts agreed that the Aqualinc Guidelines did not fit within the controlled activity pathway and therefore should not be referred to in the Schedule. Instead, as noted above, if an applicant sought to use data generated from the Guidelines, the application would need to be considered under the restricted discretionary activity pathway.

Should water meter records post 30 June 2020 be included in the calculations for rates of takes and volumes?

[13] Early in their conferencing, the experts were unable to reach a consensus on whether water meter records post 30 June 2020 should be included in the rates of takes and volume calculations.⁸ This was because of concerns about whether some water users might have ramped up their takes post the March 2020 notification date for PC7. Despite this earlier lack of consensus, by the end of their conferencing all of the experts agreed that the 30 June 2020 date should apply.

What should be the earliest date to apply for calculating historical rates of takes and volumes under the methodology in the Schedule?

[14] The experts agreed that historical records should extend as far back in time as the consent holder had water meter records, even if these pre-dated the introduction of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010. While there is the risk that the pre-2010 data could be unreliable, they said that this risk of unreliability also existed in the period since the regulations were introduced. And while there may have been changes to a measuring device, changes to infrastructure, changes to land use and changes to water use management, longer records had the advantage of being more likely to yield a greater distribution of annual use. In addition, the experts noted that changes to more efficient irrigation methods may not necessarily have resulted in

⁸ 4th JWS Planners Schedule 10A.4 dated 7/8 April 2021 at [13]-[19].

a reduction in volumes taken and even though the likelihood was low, there could also have been reductions in the rates of take.

[15] Based on these factors, the experts decided that changes were not required to the period of water years which should apply in the 12 July 2021 amended version of the Rules in 10A.3.1 and the 12th JWS version of the Schedule.

[16] We also note that the restriction on total land area irrigated over a recent three-year period provides an important backstop that limits the extent to which irrigators could take advantage of historical water use from earlier periods and under inefficient infrastructure, such as wild or surface flooding and border dyke irrigation.

What role does the current ORC guidance document play in the application of the Schedule when it is not referred to in the Schedule?

[17] The initial response was that an updated guidance document was required but that it should not form part of PC7. Later, on the basis that the 12th JWS contained an objective method for removing atypical data from irrigation use records, the experts agreed that a guidance document would not be required for applications to be evaluated under this version.

Decision – Schedule 10.A.4 (Methodology for calculating assessed actual usage for surface-water and connected ground water takes)

[18] The 12th JWS version of the Schedule has been agreed to by all of the experts involved in its preparation and no party has raised any objection to its content.

[19] We are satisfied with the responses provided to the issues we raised on the Schedule and find that the 12th JWS version Schedule 10A.4, with one important amendment to the methodologies, should be incorporated in PC7. For clarity and consistency with the entry conditions to the controlled activity rule, the

requirement that no data after 30 June 2020 are to be used for calculating instantaneous take and daily, monthly and annual volumes are to be stated in the respective methodologies in Schedule 10A.4. The restricted discretionary activity pathway is available for applicants seeking to have data after 30 June 2020 considered.

