Otago Regional Council

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MEMORANDUM

To: **Sam Walton**

From: **Dave Stewart**

Date: **21th October 2024**

Re: **Irrigation Restrictions**

Name	Role	Date Completed
Dave Stewart	Author	15/10/2024
Helen Manly	Reviewer 1	16th October 2024

Purpose

This memo describes the methods used to calculate the days when nine Otago rivers would have had restrictions on the water available for irrigation during the irrigation season based on the new minimum flows proposed for these catchments in the proposed Otago Land and Water Regional Plan. The results are reported in a series of tables.

Abstraction Reliability Data Analysis

Methods

For each of the sites analysed, the daily data were naturalised by either:

- Adding abstractions back into the flow record (Kakanui River. Kauru River, Luggate Creek, Pomahaka River, Waipahi River) or:
- Calculating a synthetic flow record for the sites where adding abstractions was not possible (Cardrona River, Low Burn). Note that recent data for the Arrow and Cardrona were naturalised by adding the abstractions back into the flows.

The resulting natural flow data were analysed to determine when each river would fall naturally to and below the prescribed minimum flow(s). The periods when irrigation may have been completely shut down were identified.

The data were also analysed to determine:

- The days when there would be no restrictions to abstraction in the irrigation season (1 September to 30 April):
- The days when the amount of irrigation water available would be restricted to between 50% and 100% of consented allocation:
- The days when the amount of irrigation water available would be restricted to between 0% and 50% of consented allocation.

While several rivers in this group already had naturalised records, all data were updated to include all seasons up to the 2023/24 season.

Kakanui River at McCones **(Table 1 in all sections).**

Irrigation abstraction data are acceptable from the 2010/11 season to the present, and this flow record was naturalised for that period. Table 1 shows the days when the natural flow would have fallen below the proposed minimum flow of 570 l/s.

Analysis of the current situation using the 250/300 l/s minimum flow from 2011 to the present, shows this minimum flow would not be reached naturally, and therefore, no full irrigation shutdown would have occurred. The irrigators currently roster their abstractions so that the minimum flow is not breached. Existing minimum flow restrictions have not been produced in a table.

Kauru River **(Table 2 in all sections)**

This catchment is currently included in the Kakanui catchment minimum flows. There has been no full shutdown of irrigation in the Kakanui because the existing minimum flows are less than the lowest flow likely at McCones under natural conditions and the irrigators roster their abstractions to ensure the minimum flow is not breached. As a result, there have been no restrictions in the Kauru.

In the future, a minimum flow for the Kauru is proposed, in addition to restriction by the minimum flow for the Kakanui mainstem at McCones. In the table for the Kauru River, the days of potential restriction for the Kauru River caused by the McCones minimum flow are shown with an asterisk.

Cardrona at Mt Barker Upstream **(Table 3 in all sections).**

This is a combination of two record sets. The first from 2000 - 2015 is using the NIWA derived flow record for this site and from 2016 – 2024 is naturalised flow using the abstraction data to correct the flow data. Reliable abstraction data was not available before 2015.

There are no current minimum flow restrictions on this river.

Cardrona Downstream of Mt Barker to Cardrona at Confluence Recorder **(Table 4 in all sections)**

This analysis is for the period 2015 – 2024 and is based on the irrigation abstraction data being added back into the flow data for this site. Reliable abstraction data wasn't available before 2015.

There are no current minimum flow restrictions on this river.

Luggate Creek **(Table 5 in all sections)**

There is great difficulty in naturalising Luggate Creek flows. The irrigation usage records in the ORC database are wrong, and there seems little chance of being able to correct them. Unfortunately, the collecting and storing of incorrect data continues despite being identified and the data collected for the 2023/24 season continues to be wrong. For example, the primary consented take is 358 l/s, and 150 l/s is identified as being supplementary water (B Block water) with a higher minimum flow. That is a total of 508 l/s if flows in Luggate Creek are more than 1118 l/s at the flow recorder. According to the data stored now in the ORC database, the water take was between 1250 l/s and 1650 l/s during the November 2023 to April 2024 period. During May and June 2024, the average take was about 850 l/s according to the data. The race that transports the water is unlikely to take more than about 700l/s and there is significant leakage from this race. There is no point in doing any analyses of the data for this catchment until accurate measurement of the abstraction is achieved.

Arrow River **(Table 6 in all sections)**

Records were naturalised for the period 2013 – 2024 by adding abstractions back into the flow measurements. Currently there are no restrictions to abstraction for the Arrow River. With the new proposed minimum flow of 1000 L/s, flows would have fallen to below the proposed minimum flow minimum flow in only 2 seasons (2011/12 and 2015/16 seasons) of the 13 seasons potentially resulting in no irrigation water being available for generally only brief periods of time.

Pomahaka River **(Table 7 in all sections)**

This river is unusual in that instead of increasing the minimum flow as in other rivers, the intention is to reduce the current minimum flow. So, for this river, an analysis was undertaken to establish the existing situation with naturalised flows and current minimum flows. The analysis determined the current frequency of restriction (Table 7a) with minimum flows of 3600l/s in summer (October to April) and 7000 l/s in winter (May to September). An additional analysis (Table 7b) was done using the proposed new minimum flows of 2800 l/s in summer and 7000 l/s in winter.

The result was a much-decreased frequency of restrictions with the lower summer minimum flow.

Waipahi River **(Table 8 in all sections)**

Currently, this river is controlled by the minimum flow settings in the Pomahaka River. It is proposed that this river will have its own minimum flow (490 l/s) and will also be under the restrictions set for the Pomahaka River. The analysis shows that the Waipahi will have significantly more restrictions than the Pomahaka River (almost double the number of days according to this analysis).

Low Burn **(Table 9 in all sections)**

The naturalised flows for this river are a derived synthetic record. The analysis was undertaken over 13 seasons. The analysis showed that there would have been no restrictions in that 13-season period with the proposed minimum flow.

Naturalised Flows

For most of these 9 catchments, flows were naturalised by adding attractions back into the daily flows. These were done by Xiaofeng Lu of the ORC and reports are available for each catchment. The calculated flows are also included in various reports by Dean Olsen.

The values used for the Cardrona were from a NIWA report prepared in 2019. The reference is: “Cardrona Hydrology Low Flows and Reliability” prepared for the Otago Regional Council September 2019.

The Low Burn values were from a Raineffects Limited report prepared in 2020. The reference is :”Low Burn Water Resources Assessment” prepared for the Otago Regional Council November 2020.

Tables – 100% shut down (flows at or below minimum flow)

Table 1. Kakanui River – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2010/11	4	22/12/10 – 25/12/10		2019/20	0	
2011/12	0					
2012/13	1	6/3/13				
	2	9/3/13 – 10/3/13				
	6	12/3/13 – 17/3/13				
	4	23/3/13 – 26/3/13				
	8	28/3/13 – 4/4/13				
	12	8/4/13 – 19/4/13				
2013/14	0					
2014/15	1	7/1/15				
	5	10/1/15 – 14/1/15				
	4	19/1/15 – 22/1/15				
	7	25/1/15 – 31/1/15				
2015/16	2	12/1/16 – 13/1/16				
	1	2/3/16				
	3	4/3/16 – 6/3/16				
	8	8/3/16 – 15/3/16				
	6	21/3/16 – 26/3/16				
	2	9/4/16 – 10/4/16				
	4	22/4/16 – 25/4/16				
	4	27/4/16 – 30/4/16				
2016/17	0					
2017/18	1	18/1/18				
	5	27/1/18 – 31/1/18				
2018/19	0					

Current situation is no full shutdown of irrigation because the existing minimum flows are less than the lowest flow likely in this river under natural conditions and the irrigators roster their abstractions to ensure the minimum flow is not breached.
Irrigation restrictions could occur on 6 out of 14 seasons.

Table 2. Kauru River– Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2017/18	2	5/12/17 – 6/12/17		2023/24 (cont)	4	10/3/24 – 13/3/24*
	2	10/12/17 - 11/12/17			3	16/3/24 – 18/3/24*
	2	20/12/17 – 21/12/17			10	19/3/24 – 28/3/24*
	15	29/12/17 – 13/1/18			2	3/4/24 – 4/4/24
	4	15/1/18 – 18/1/18			4	8/4/24 – 11/4/24
	10	22/1/18 – 31/1/18			12	1/4/24 – 12/4/24
2018/19	1	7/3/19				
	2	30/3/19 – 31/3/19				
	3	2/4/19 – 4/4/19				
2019/20	6	15/3/20 – 21/3/20				
2020/21	2	25/2/21 – 26/2/21				
	2	3/3/21 – 4/3/21				
	2	8/3/21 – 9/3/21				
	15	19/3/21 – 2/4/21				
2021/22	0					
2022/23	7	15/2/23 – 21/2/23				
2023/24	2	21/1/24 – 22/1/24				
	4	30/1/24 – 2/2/24				
	6	5/2/24 – 10/2/24				
	32	13/2/24 – 15/3/24				
	6	26/2/24 – 2/3/24*				
	4	4/3/24 – 7/3/24*				

This catchment is included in the Kakanui catchment at present. Current situation is no full shutdown of irrigation in the mainstem because the existing minimum flows are less than the lowest flow likely in the Kakanui river under natural conditions and the irrigators roster their abstractions to ensure the minimum flow is not breached.

In the future, this river will have its own minimum flow but is still under the minimum flow for the Kakanui mainstem at McCones. With its own minimum flow plus the McCones restrictions, this river will be significantly more restricted then at present and significantly more restricted than the main Kakanui River in the future.

* Indicates affected by McCones in the Kakanui.

Table 3. Cardrona River U/S Mt Barker – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2000/01	0			2010/11	0	
2001/02	4	12/9/01 – 15/9/01		2012/13	0	
	3	17/9/01 – 19/9/01				
	5	23/10/01 – 27/10/01		2013/14	0	
	2	30/10/01 – 31/10/01				
				2014/15	0	
2002/03	0					
				2015/16	1	2/1/16
2003/04	0				2	6/1/16 – 7/1/16
					6	9/1/16 – 14/1/16
2004/05	0				2	22/1/16 – 23/1/16
					17	31/1/16 – 16/2/16
2005/06	15	14/10/05 – 28/10/05			5	29/2/16 – 4/3/16
	2	30/10/05 – 31/10/05			4	7/3/16 – 10/3/16
	10	29/1/06 – 7/2/06			10	17/4/16 – 26/4/16*
	1	10/2/06			3	28/4/16 – 30/4/16**
	1	13/2/06				
	4	17/2/06 – 20/2/06		2016/17	0	
	6	22/2/06 – 27/2/06				
	1	14/3/06		2017/18	1	16/1/18
	2	16/3/06 – 17/3/06			10	22/1/18 – 31/1/18
	1	19/3/06				
				2018/19	0	
2007/08	1	21/1/08				
	3	19/3/08 – 21/3/08		2019/20	0	
2008/09	0			2020/21	0	
2009/10	1	24/2/10		2021/22	0	
	3	26/2/10 – 28/2/10				
	15	7/3/10 – 21/3/10		2022/23	0	
	3	31/3/10 – 2/4/10				
				2023/24	1	23/2/24
					2	1/3/24 – 2/3/24

The Cardrona River currently has no minimum flow so cannot be compared to that with a minimum flow.
Summer restrictions could have occurred in about 7 of the 24 seasons analysed here.
* This is from Cardrona at Confluence recorder.
** First 3 days of this group are from the Cardrona at Confluence recorder.

Table 4. Cardrona River Downstream of Mt Barker to Cardrona at Confluence - Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2014/15	0					
2015/16	10	17/4/16 - 26/4/16				
	3	28/4/16 – 30/4/16				
2016/17	0					
2017/18	0					
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	0					
2023/24	0					

The Cardrona River currently has no minimum flow so cannot be compared to that with a minimum flow.
Only the dry 2015/16 season may have seen abstraction restrictions out of the 9 seasons analysed

Table 5. Luggate Creek – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	0					
2017/08	0					
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	0					

There is great difficulty in naturalising Luggate Creek flows. The usage records in the ORC database are wrong and there seems little chance of being able to correct them. Unfortunately, while this has been pointed out to the consent holders and to the database managers, the collecting and storing of incorrect data continues. The issue came up in 2022/23 and the incorrect data was pointed out. Despite that, the data collected for the 2023/24 season is even more grossly wrong. The consent holder can take 358 l/s primary water, and a total of 150l/s as supplementary according to their consents. That is a total of 508 l/s if flows in Luggate Creek are more than 1118 l/s. According to the data stored now in the ORC database, the consent holder took between 1250 l/s and 1650 l/s during the November 2023 to April 2024 period. During May and June 2024, the average take was about 850 l/s according to the data. The race that transports the water is unlikely to take more than about 700l/s and it leaks significantly.

Table 6. Arrow River at Cornwall Street – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	13	6/2/12 – 18/2/12				
	3	20/2/12 – 22/2/12				
2012/13	0					
2013/14	0					
2014/15	0					
2015/16	1	3/2/16				
	1	12/2/16				
	1	26/2/16				
	6	28/2/16 – 4/3/16				
2016/17	0					
2017/18	0					
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	0					
No current restrictions apply in this river. Under the proposed restrictions, the Arrow would have been restricted in only 2 seasons out of 12						

Table 7a. Pomahaka River – Current Minimum Flow Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2013/14	0			2023/24	5	28/2/24 – 3/3/24
2014/15	2	17/1/17 – 18/1/17				
	9	25/1/15 – 2/2/15				
2015/16	4	14/2/16 – 17/2/16				
	2	7/4/16 – 8/4/16				
2016/17	0					
2017/18	1	3/1/18				
	6	13/1/18 – 18/1/18				
	9	23/1/18 – 31/1/08				
2018/19	2	12/2/19 – 13/2/19				
	1	25/2/19				
	1	7/3/19				
	8	19/3/19 – 26/3/19				
	7	30/3/19 – 5/4/19				
	2	9/4/19 – 10/4/19				
2019/20	0					
2020/21	2	28/2/21 – 29/3/21				
	1	1/4/21				
	8	7/4/21 – 14/4/21				
	2	23/4/21 – 24/4/21				
2021/22	2	6/3/22 – 7/3/22				
	5	11/3/22 – 15/3/22				
	22	17/3/22 – 7/4/22				
	3	10/4/22 – 12/4/22				
	5	16/4/22 – 20/4/22				
2022/23	2	31/1/23 – 1/2/23				
	10	12/2/23 – 21/2/23				
	6	1/3/23 – 6/3/23				
	5	8/3/23 – 12/3/23				

This is the current situation in the Pomahaka, and which also applies to the Waipahi. It was restricted on 9 of the 11 seasons available. This is a high frequency of restriction.

Table 7b. Pomahaka River – New Minimum Flow Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2013/14	0					
2014/15	0					
2015/16	0					
2016/17	0					
2017/18	3	16/1/18 – 18/1/18				
	7	25/1/18 – 31/1/18				
2018/19	27	4/4/19 – 30/4/19				
2019/20	0					
2020/21	0					
2021/22	15	22/3/22 – 5/4/22				
2022/23	7	15/2/23 – 21/2/23				
	1	5/3/23				
	3	10/3/23 – 12/3/23				
2023/24	0					
This is the possible situation in the Pomahaka which also applies to the Waipahi. The frequency and length of restriction is less than the current situation, but restrictions would occur in 4 of the 11 seasons analysed.						

Table 8. Waipahi River – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April – Subject to Minimum Flow Restrictions in the Pomahaka Also

Year	Number of days	Period		Year	Number of days	Period
2011/12	6	22/4/12 – 27/4/12		2022/23	2	31/1/23 – 1/2/23
					8	15/2/23 – 22/2/23
2012/13	6	17/4/13 – 22/4/12			10	3/3/23 – 12/3/23
					1	20/3/23
2013/14	0					
2014/15	0					
2015/16	0					
2016/17	0					
2017/18	3	16/1/18 – 18/1/18**				
	7	25/1/18 – 31/1/18**				
2018/19	27	4/4/19 – 30/4/19**				
2019/20	0					
2020/21	4	4/3/21 – 7/3/21				
	4	13/3/21 – 16/3/21				
	14	20/3/21 – 5/4/21*				
	12	5/4/21 – 16/4/21				
	6	19/4/21 – 24/4/21				
2021/22	1	18/1/22				
	4	30/1/22 – 2/2/22				
	37	3/3/22 – 6/4/22				
	4	9/4/22 – 12/4/22				
	6	15/4/22 – 20/4/22				

2023/24 season not analysed because the data has yet to appear in the ORC database.
This river does not currently have its own minimum flow and is controlled by that in the Pomahaka. Frequency of restriction in the Pomahaka under the future regime is included in this analysis.
Note that the Waipahi abstraction data were unusable for the seasons 2017/18, 2018/19, and 2019/20.
Under the new regime, the Waipahi will have significantly more restrictions than the main Pomahaka River (about double)
* Indicates extended due to the Pomahaka restrictions
**These restrictions were taken from the proposed Pomahaka restrictions analysis. No data is available for the Waipahi abstractions for these seasons.

Table 9. Low Burn – Days When No Irrigation Allocation Water is Available (100% Shut Down) – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2012/13	0					
2013/14	0					
2014/15	0					
2015/16	0					
2016/17	0					
2017/18	0					
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	0					
2023/24	0					
Both minimum flows are below the calculated natural minimum flow for the Low Burn naturalised flow record, so no full restrictions are likely.						

Tables 100% Availability

Table 1. Kakanui River – Days of No Irrigation Restrictions – 100% Availability Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2010/11	74	1/9/10 – 13/11/10		2017/18 (cont)	89	1/2/18 – 30/4/18
	5	21/11/20 – 25/11/10				
	124	28/12/10 – 30/4/11		2018/19	143	1/9/18 – 12/2/19
					20	24/1/19 – 12/2/19
2011/12	111	1/9/11 – 4/12/11			5	14/2/19 – 18/2/19
	1	8/1/12			2	26/2/19 – 27/2/19
	99	13/1/12 – 20/4/12			2	1/3/19 – 2/3/19
	2	29/4/12 – 30/4/12			2	9/3/19 – 10/3/19
					7	16/3/19 – 22/3/19
2012/13	169	1/9/12 – 16/2/13			5	12/4/19 – 16/4/19
	1	19/3/13			1	30/4/19
	10	21/4/13 – 30/4/13				
				2019/20	95	1/9/19 – 4/12/19
2013/14	69	1/9/13 – 8/11/13			2	6/12/19 – 7/12/19
	4	10/11/13 – 13/11/13			3	9/12/19 – 11/12/19
	3	18/11/13 – 20/11/13			34	17/12/19 – 19/1/20
	11	25/11/13 – 5/12/13			24	5/2/20 – 28/2/20
	3	10/12/13 – 12/12/13			3	26/3/20 – 28/3/20
	53	17/12/13 – 7/2/14			31	31/3/20 – 30/4/20
	77	13/2/14 – 30/4/14				
				2020/21	82	1/9/20 – 21/11/20
2014/15	90	1/9/14 – 29/11/14			4	1/12/20 – 4/12/20
	2	13/12/14 – 14/12/14			4	6/12/20 – 9/12/20
	3	22/12/14 – 24/12/14			1	13/12/20
	16	1/2/15 – 16/2/15			62	23/12/20 – 22/2/21
	3	4/3/15 – 6/3/15			3	24/2/21 – 26/2/21
	54	8/3/15 – 30/4/15			5	11/3/21 – 15/3/21
					13	14/4/21 – 26/4/21
2015/16	73	1/9/15 – 12/11/15			2	29/4/21 – 30/4/21
	1	14/11/15				
	2	29/11/15 – 30/11/15		2021/22	152	1/9/21 – 30/1/22
	1	4/12/15			87	3/2/22 – 30/4/22
	11	16/12/15 – 26/12/15				
	27	17/1/16 – 12/2/16		2022/23	159	1/9/22 – 6/2/23
	1	14/2/16			67	23/2/23 – 30/4/24
2016/17	135	1/9/16 – 13/1/17		2023/24	100	1/9/23 – 9/12/23
	48	19/1/17 – 7/3/17			1	12/12/23
	50	12/3/17 – 30/4/17			2	15/12/23- 16/12/23
					3	20/12/23 – 22/12/23
2017/18	90	1/9/17 – 29/11/17			19	25/12/23 – 12/1/24
	2	14/12/17 – 15/12/17			1	14/1/24
	2	20/1/18 – 21/1/18			2	24/1/24 – 25/1/24
					8	13/4/24 – 20/4/24

Table 2. Kauru River - Days of No Irrigation Restrictions – 100% Availability Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	242	1/9/16 – 30/4/17				
2017/18	93	1/9/17 – 2/12/17				
	9	12/12/17 – 18/12/17				
	3	22/12/17 – 24/12/17				
	1	27/10/17				
	1	4/1/18				
	3	19/1/18 – 21/1/18				
	89	1/1/18 – 30/4/18				
2018/19	185	1/9/18 – 4/3/19				
	19	8/3/19 – 26/3/19				
	19	5/4/19 – 23/4/19				
	3	28/4/19 - 30/4/19				
2019/20	186	1/9/19 – 4/3/20				
	4	9/3/20 – 12/3 /20				
	40	22/3/20 – 30/4/20				
2020/21	105	1/9/20 – 14/12/20				
	62	21/12/20 – 20/2/21				
	2	5/3/20 – 6/3/20				
	7	11/3/21 – 17/3/21				
	16	13/4/21 – 28/4/21				
2021/22	0					
2022/23	159	1/9/22 – 6/2/23				
	1	12/2/23				
	68	22/2/23 – 30/4/23				
2023/24	111	1/9/23 – 20/12/23				
	28	23/12/23 – 19/1/24				
	6	23/1/24 – 28/1/24				
	1	3/2/24				
	1	6/3/24				
	3	29/3/24 – 31/3/24				
	1	4/4/24				
	19	13/4/24 – 30/4/24				

Table 3. Cardrona River Upstream of Mt Barker – Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2000/01	166	1/9/00 – 13/2/01		2005/06 (cont)	3	8/4/06 – 10/4/06
	29	16/2/01 – 16/3/01			8	23/4/04 – 30/4/06
	10	28/3/01 – 6/4/01				
	2	10/4/01 – 11/4/01				
	4	22/4/01 – 25/4/01		2006/07	10	1/9/06 – 10/9/06
					146	21/9/06 – 13/2/07
2001/02	2	28/10/01 – 29/10/01			3	7/3/07 – 9/3/07
	1	21/9/01			7	13/3/07 – 19/3/07
	1	28/9/01			3	11/4/07 – 13/4/07
	1	6/10/01			4	24/4/07 – 27/10/07
	148	1/11/01 – 28/3/02				
	15	30/3/02 – 13/4/02		2007/08	18	1/9/07 – 18 9 07
	3	15/4/02 – 17/4/02			3	23/9/07 – 25/9/07
	3	28/4/02 – 30/4/02			101	30/9/07 – 8/1/08
					1	10/1/08
2002/03	162	1/9/02 – 9/2/03			6	14/1/08 – 19/1/08
	1	12/2/03			6	22/1/08 – 27/1/08
	13	14/2/03 – 26/2/03			3	1/2/08 – 3/2/08
	7	3/3/03 – 2/4/03			1	11/2/08
	1	12/3/03			3	15/2/08 – 17/2/08
	3	31/3/03 – 2/4/03			2	24/2/08 – 25/2/08
	12	4/4/03 – 15/4/03			7	1/3/08 – 7/3/08
	14	17/4/03 – 30/4/0342			2	22/3/08 – 23/3/08
					3	28/4/08 – 30/4/08
2003/04	9	3/9/03 – 11/9/03				
	132	14/9/03 - 22/1/04		2008/09	156	2/9/08 – 4/2/09
	96	26/2/04 – 30/4/04			4	10/2/09 – 13/2/09
					70	20/2/09 – 30/4/09
2004/05	247	1/9/04 – 30/4/05				
				2009/10	151	1/9/09 - 29/1/10
2005/06	19	2/9/05 – 20/9/05			1	22/3/10
	2	1/10/05 – 2/10/02			1	24/3/10
	6	4/10/05 – 9/10/05			2	4/4/10 – 5/4/10
	1	29/10/05			1	14/4/10
	30	1/11/05 – 30/11/05			6	25/4/10 – 30/4/10
	4	6/12/05 – 9/12/05				
	9	20/12/05 – 28/12/05		2010/11	242	1/9/10 – 30/4/11
	7	2/1/06 – 8/1/06				
	5	12/1/06 – 16/1/06		2011/12	242	1/9/11 – 30/4/12
	1	18/1/06				
	1	21/3/06				

Table 3 (continued). Cardrona River Upstream of Mt Barker – Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April (2000/01 – 2023/24)

Year	Number of days	Period		Year	Number of days	Period
2012/13	175	1/9/12 – 22/2/13		2017/18	110	1/9/17 – 19/12/17
	10	17/3/13 – 26/3/13			2	21/12/17 – 22/12/17
	1	1/4/13			1	26/12/17
	5	5/4/13 – 9/4/13			7	1/2/18 – 7/2/18
	3	12/4/13 – 14/4/13			2	11/2/18 – 12/2/18
	11	20/4/13 – 30/4/13			71	19/2/18 – 30/4/18
	8	23/4/06 – 30/4/06				
				2018/19	242	1/9/18 – 30/4/19
2013/14	163	1/9/13 – 10/2/14				
	1	13/2/14		2019/20	242	1/9/19 – 30/4/20
	1	1/3/14				
	3	3/3/14 – 5/3/14				
	2	18/3/14 - 19/3/14		2020/21	242	1/9/20 – 30/4/21
	3	5/4/14 – 7/4/14				
	8	16/4/14 – 23/4/14		2021/22	221	1/9/21 – 9/4/22
	6	24/4/14 – 30/4/13			19	14/4/22 – 30/4/22
2014/15	145	1/9/ 14 – 23/1/15		2022/23	147	1/9/22 – 25/1/23
	12	31/1/15 – 11/2/15			3	27/1/23 – 29/1/23
	2	28/2/15 – 1 /3/15			12	2/2/23 – 13/2/23
	2	3/3/15 – 4/ 3/ 15			10	22/2/23 – 3/3/23
	4	6/3/15 – 9/3/15			57	5/3/23 – 30/4/23
	19	12/4/15 – 30/4/15				
				2023/24	129	1/9/23 – 7/1/24
2015/16	110	1/9/15 – 19/12/15			2	14/1/24 – 15/1/24
	1	16/1/16			21	19/1/24 – 8/2/24
	4	18/2/16 – 21/2/16			4	10/2/24 – 13/2/24
	2	15/3/16 – 16/3/16			1	25/2/24
	2	19/3/16 – 20/3/16			5	4/3/24 – 8/3/24
	2	24/3/16 – 25/3/16			14	25/3/24 – 7/4/24
	4	1/4/16 – 4/4/16			21	10/4/24 – 30/4/24
	2	8/4/16 – 9/4/16				
	3	12/4/16 – 14/4/16				
2016/17	242	1/9/16 – 30/4/17				

Table 4. Cardrona River Downstream of Mt Barker – Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2014/15	242					
2015/16	228	1/9/15 – 15/4/16				
2016/17	242					
2017/18	242					
2018/19	242					
2019/20	242					
2020/21	242					
2021/22	242					
2022/23	242					
2023/24	242					

Table 5. Luggate Creek - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	182	1/9/16 – 1/3/17				
	4	12/3/16 – 15/3/16				
	1	27/3/16				
	11	12/4/16 – 22/4/16				
	1	30/4/16				
2017/18	106	1/9/17 – 1/3/17				
	5	1/2/18 – 5/2/18				
	7	20/2/18 – 30/4/18				
2018/19	184	1/9/18 – 3/3/19				
	14	7/3/19 – 20/3/19				
	37	25/3/19 – 30/4/19				
2019/20	214	1/9/19 – 1/4/20				
	2	7/4/20 – 8/4/20				
	17	14/4/20 – 30/4/20				
2020/21	106	1/9/20 – 15/12/20				
	1	22/12/20				
	4	24/12/20 – 27/12/20				
	46	2/1/21 – 16/2/21				
	9	5/3/21 – 13/3/21				
	2	15/3/21 – 16/2/21				
	16	13/4/21 – 28/4/21				
2021/22	146	1/9/21 – 24/1/22				
	15	2/2/22 – 16/2/22				
	10	18/2/22 – 27/2/22				
	3	2/3/22 – 4/3/22				
	5	7/3/22 – 11/3/22				
	1	6/4/23				
	2	12/4/22 – 13/4/22				
	1	21/4/22				
2022/23	144	1/9/22 – 23/1/23				
	1	3/2/23				
	3	5/2/23 – 7/2/23				
	5	22/2/23 – 26/2/23				
	2	5/3/23 – 6/3/23				
	3	9/3/23 – 11/3/23				
	49	13/3/23 – 30/4/23				

Table 6. Arrow River - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	111	1/9/11 – 20/12/11		2015/16 (cont)	1	12/4/15
	3	12/1/12 – 14/1/12				
	1	27/1/12		2016/17	200	1/9/16 – 19/3/17
	4	23/2/12 – 26/2/12			1	27/3/17
	5	1/3/12 – 5/3/12			4	12/4/17 – 15/4/17
	2	7/3/12 – 8/3/12				
	21	11/3/12 – 31/3/12		2017/18	109	1/9/17 – 18/12/17
	1	10/4/12			1	25/12/17
	2	29/4/12 – 30/4/12			6	1/2/18 – 6/2/18
					22	21/2/18 – 13/3/18
2012/13	148	1/9/12 – 26/1/13			2	16/3/18 – 17/3/18
	3	4/2/13 – 6/12/13			41	21/3/18 – 30/4/18
	1	12/2/13				
	1	17/3/13		2018/19	162	1/9/18 – 9/2/19
					22	11/2/19 – 4/3/19
2013/14	157	1/9/13 – 4/2/14			5	7/3/19 – 11/3/19
	3	13/2/14 – 15/2/14			2	16/3/19 – 17/3/19
	1	23/2/14			37	25/3/19 – 30/4/19
	2	28/2/14 – 1/3/14				
	4	3/3/14 – 6/3/14		2019/20	34	1/9/19 – 4/10/19
	1	18/3/14			147	7/10/19 – 1/3/20
	1	5/4/14			2	3/3/20 – 4/3/20
	1	25/4/14			4	8/3/20 – 11/3/20
	3	28/4/14 – 30/4/14			1	27/3/20
					1	13/4/20
2014/15	111	18/9/14 – 6/1/15			3	18/4/20 – 20/4/20
	1	12/1/15			2	23/4/20 – 18/4/20
	3	18/1/15 – 20/1/15				
	9	30/1/15 – 7/2/15		2020/21	172	1/9/20 – 19/2/21
	3	9/2/15 – 11/2/15			1	3/3/21
	1	28/2/15			4	5/3/21 – 8/3/21
	2	2/3/15 – 3/3/15			2	10/3/21 – 11/3/21
	2	7/3/15 – 8/3/15			2	15/3/21 – 16/3/21
	1	12/4/15			2	13/4/21 – 14/4/21
	9	15/4/15 – 23/4/15			3	16/4/21 – 18/4/21
	5	26/4/15 – 30/4/15			1	24/4/21
					1	26/4/21
2015/16	110	1/9/15 – 19/12/15				
	5	22/12/15 – 26/12/15		2021/22	143	1/9/21 – 21/1/22
	2	15/1/16 – 16/1/16			9	2/2/22 – 10/2/22
	3	17/2/16 – 19/2/16			2	19/2/22 – 20/2/22
	1	15/3/16			1	6/4/22
	1	8/4/15			1	12/4/22

Table 6 (continued). Arrow River - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2022/23	131	1/9/22 – 9/1/23				
	5	11/1/23 – 15/1/23				
	2	27/1/23 – 28/1/23				
	2	2/2/23 – 3/2/23				
	3	5/2/23 – 7/2/23				
	4	22/2/23 – 25/2/23				
	2	5/3/23 – 6/3/23				
	1	9/3/23				
	2	13/3/23 – 14/3/23				
	1	7/3/23				
	42	20/3/23 – 30/4/23				
2023/24	109	1/9/23 – 12/12/23				
	1	21/12/23				
	1	25/12/23				
	2	30/12/23 – 31/12/23				
	1	20/1/24				
	2	23/1/24 – 24/1/24				
	3	27/1/24 – 29/1/24				
	2	2/2/24 – 3/2/24				
	1	12/2/24				
	2	4/3/24 – 5/3/24				
	4	25/3/24 – 28/3/24				
	11	11/4/24 – 21/4/24				

Table 7. Pomahaka River - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2013/14	2	1/9/13 – 2/9/13		2021/22 (cont)	2	9/3/22 – 10/3/22
	239	4/9/13 – 30/4/14			1	8/4/22
					2	13/4/22 – 14/4/22
2014/15	132	1/9/14 – 10/1/15			10	21/4/22 – 30/4/22
	1	13/1/15				
	5	19/1/15 – 23/1/15		2022/23	151	1/9/22 – 29/1/23
	87	3/2/15 – 30/4/15			6	2/2/23 – 7/2/22
					1	11/2/23
2015/16	163	1/9/15 – 10/2/16			6	22/2/23 – 27/2/23
	6	18/2/16 – 23/2/16			49	13/3/23 – 30/4/23
	36	25/2/16 – 31/3/16				
	1	5/4/16		2023/24	177	1/9/23 – 24/2/24
	22	9/4/16 – 30/4/16			57	5/3/24 – 30/4/24
2016/17	0					
2017/18	120	1/9/17 – 29/12/17				
	1	2/1/18				
	38	4/1/18 – 11/1/18				
	89	19/1/18 – 21/1/18				
		1/2/18 – 30/4/18				
2018/19	163	1/9/18 – 10/2/19				
	8	16/2/19 – 23/2/19				
	7	27/2/19 – 5/3/19				
	10	8/3/19 – 17/3/19				
	1	28/3/19				
	3	6/4/19 – 8/4/19				
	20	11/4/19 – 30/4/19				
2019/20	0					
2020/21	205	1/9/20 – 24/3/21				
	3	3/4/21 – 5/4/21				
	6	15/4/21 – 20/4/21				
	5	26/4/21 – 30/4/21				
2021/22	139	1/9/21 – 17/1/22				
	44	20/1/22 – 4/3/22				

Table 8. Waipahi River - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	0			2022/23	151	1/9/22 – 29/1/23
					3	2/2/23 – 4/2/23
2012/13	131	1/9/11 – 9/1/12			8	6/2/23 – 13/2/23
	96	11/2/12 – 15/4/12			4	23/2/23 – 26/2/23
	2	29/4/12 – 30/4/12			2	14/3/23 – 15/3/23
					1	18/2/23
2013/14	0				41	21/3/23 – 30/4/23
2014/15	0			2023/24	0	
2015/16	223	1/9/15 – 10/4/16				
	19	19/4/16 – 30/4/16				
2016/17	0					
2017/18		No data				
2018/19		No data				
2019/20		No data				
2020/21	180	1/9/20 – 27/2/21				
	2	8/3/22 – 9/3/21				
	4	17/4/21 – 30/4/21				
2021/22	137	1/9/21 – 15/1/22				
	5	19/1/22 – 23/1/22				
	1	28/1/22				
	10	3/2/22 – 12/2/22				
	9	16/2/22 – 24/2/24				
	1	13/4/22				
	9	22/4/22 – 30/4/22				

Table 9. Low Burn - Days of No Irrigation Restrictions – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2012/13	149	1/9/12 – 28/1/13		2017/18 (cont)	3	1/2/18 – 3/2/18
	4	4/2/13 – 7/2/13			18	20/2/18 – 9/3/18
	2	17/3/13 – 18/3/13			36	21/3/18 – 25/4/18
					3	28/4/18 – 30/4/18
2013/14	7	10/9/13 – 16/9/13				
	89	20/9/13 – 17/12/13		2018/19	13	15/9/18 – 27/9/18
	2	21/12/13 – 22/12/13			105	29/9/18 – 11/1/19
	2	25/12/13 – 26/12/13			2	13/1/19 – 14/1/19
	1	30/12/13			1	19/1/19
	3	3/1/14 – 5/1/13			1	28/1/19
	3	7/1/13 – 9/1/13			1	8/3/19
	1	12/1/14			2	26/3/19 – 27/3/19
					3	10/4/19 – 12/4/19
2014/15	5	12/9/14 – 16/9/14			1	27/4/19
	1	19/9/14				
	4	24/9/14 – 27/9/14		2019/20	2	29/9/19 – 30/9/19
	76	1/10/14 – 15/12/14			106	8/10/19 – 21/1/20
	4	18/12/14 – 21/12/14			7	3/2/20 – 9/2/20
	1	1/1/15				
				2020/21	3	4/9/20 – 6/9/20
2015/16	3	16/9/15 – 18/9/15			65	14/9/20 – 17/11/20
	49	1/10/15 – 18/11/15			12	2/1/21 – 13/1/21
	1	21/11/15			9	17/1/21 – 25/1/21
	5	25/11/15 – 29/11/15			2	9/2/21 – 10/2/21
	2	3/12/15 – 4/12/15			1	5/3/21
	2	18/2/16 – 19/2/16				
				2021/22	115	1/9/21 – 24/12/21
2016/17	4	4/9/16 – 7/9/16			3	27/12/21 – 29/12/21
	3	9/9/16 – 11/9/16			2	4/2/22 – 5/2/22
	103	16/9/16 – 27/12/16				
	1	12/1/17		2022/23	13	1/9/22 – 19/9/22
	2	18/1/17 – 19/1/17			97	19/9/22 – 24/12/22
	13	22/1/17 – 3/2/17			2	20/3/22 – 21/3/22
	2	13/2/17 – 14/2/17			2	5/4/23 – 6/4/23
	2	12/4/17 – 13/4/17			8	11/4/23 – 18/4/23
2017/18	5	6/9/17 – 10/9/17		2023/24	1/1/69	7/9/23
	79	14/9/17 – 1/12/17				11/9/23
	1	9/12/17				19/9/23 – 24/11/23

Tables Between 0% and 50% Irrigation Availability

Table 1. Kakanui River – Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2010/11	1	1/12/10		2015/16 (cont)	11	11/4/16 – 21/4/16
	19	4/12/10 – 21/12/10			1	26/4/16
	2	26/12/10 – 28/12/10				
				2016/17	0	
2011/12	4	28/12/11 – 31/12/11				
	5	2/1/12 – 7/1/12		2017/18	1	5/12/17
	3	10/1/12 – 12/1/12			5	8/12/17 – 12/12/17
					3	17/12/17 – 19/12/17
2012/13	1	22/2/13			3	21/12/17 – 23/12/17
	10	24/2/13 - 5/3/13			24	25/12/17 – 17/1/18
	2	7/3/13 – 8/3/13			4	23/1/18 – 26/1/18
	1	11/3/13				
	1	18/3/13		2018/19	8	29/3/19 – 5/4/19
	2	20/3/13 – 21/3/13			1	9/4/19
	1	27/3/13			1	26/4/19
	3	5/4/13 – 7/4/13			1	28/4/19
	1	20/4/13				
				2019/20	6	29/1/20 – 3/2/20
2013/14	1	8/12/13			17	6/3/20 – 22/3/20
	2	15/12/13 – 16/12/13				
				2020/21	5	17/12/20 – 21/12/20
2014/15	3	8/12/14 – 10/12/14			2	20/3/21 – 21/3/21
	3	19/12/14 – 21/12/14			21	24/3/21 – 13/4/21
	8	26/12/14 – 2/1/15				
	3	4/1/15 – 6/1/15		2021/22	0	
	2	8/1/15 – 9/1/15				
	4	15/1/15- 18/1/15		2022/23	3	9/2/23 – 11/2/23
	2	23/1/15 – 24/1/15			3	15/2/23 – 17/2/23
	2	28/2/15 – 1/3/15			3	19/2/23 – 21/2/23
2015/16	2	20/11/15 – 21/11/15		2023/24	1	22/1/24
	4	24/11/15 – 27/11/15			2	3/2/24 – 4/2/24
	4	11/12/15 – 14/12/15			7	7/2/24 – 13/2/24
	1	1/1/16			11	15/2/24 – 25/2/24
	4	3/1/16 – 6/1/16			1	3/3/24
	4	8/1/16 – 11/1/16			2	8/3/24 - 9/3/24
	2	14/1/16 – 15/1/16			2	14/3/24 – 15/3/24
	8	23/2/16 – 1/3/16			4	19/3/24 – 22/3/24
	1	3/3/16			2	24/3/24 – 25/3/24
	1	7/3/16			1	29/3/24
	1	16/3/16			5	31/3/24 – 4/4/24
	2	19/3/16 – 20/3/16			6	7/4/24 – 12/4/24
	13	27/3/16 – 8/4/16			3	26/4/24 – 28/4/24

Table 2. Kauru River - Days When Between 0% and 50% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	0					
2017/18	1	4/12/17				
	1	9/12/17				
	1	28/12/17				
2018/19	1	6/3/19				
	2	28/3/19 – 29/3/19				
	1	1/4/19				
	3	25/4/19 – 27/4/19				
2019/20	2	14/3/20 – 15/3/20				
2020/21	2	16/12/20 – 17/12/20				
	1	20/12/20				
	2	23/2/21 – 24.2.21				
	4	27/2/21 – 2/3/21				
	1	10/3/21				
	1	18/3/21				
	1	3/4/21				
2021/22	0					
2022/23	1	9/2/23				
	2	13/2/23 – 14/2/23				
2023/24	1	22/12/23				
	1	29/1/24				
	1	11/2/24				
	1	2/4/24				

Table 3. Cardrona River Upstream of Mt Barker – Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2000/01	0			2007/08	3	27/9/07 – 29/9/07
					2	11/1/08 – 12/1/08
2001/02	10	2/9/01 – 11/9/01			1	20/1/08
	1	16/9/01			3	7/2/08 – 9/2/08
	1	20/9/01			4	20/2/08 – 23/2/08
	4	23/9/01 – 26/9/01			1	27/2/08
	3	10/10/01 – 12/10/01			1	29/2/08
	1	16/10/01			7	12/3/08 – 18/3/08
	1	22/10/01			3	26/3/08 – 28/3/08
	1	28/10/01			2	30/3/08 – 31/3/08
					9	9/4/08 – 17/4/08
2002/03	4	22/3/02 – 25/3/02				
	2	28/3/02 – 29/3/02		2008/09	3	17/2/09 – 19/2/09
2003/04	0			2009/10	14	4/2/10 – 17/2/10
					4	20/2/10 – 23/2/10
2004/05	0				1	25/2/10
					1	1/3/10
2005/06	4	26/9/05 – 29/9/05			4	3/3/10 – 6/3/10
	2	12/10/05 – 13/10/05			5	26/3/10 – 30/3/10
	5	24/1/06 – 28/1/06			1	3/4/10
	2	8/2/06 – 9/2/06			6	7/4/10 – 12/4/10
	2	11/2/06 – 12/2/06			5	19/4/10 – 23/4/10
	1	14/2/06				
	1	16/2/06		2010/11	0	
	1	21/2/06				
	7	2/3/06 – 7/3/06		2011/12	0	
	5	9/3/06 – 13/3/06				
	1	15/3/06		2012/13	2	28/2/13 – 1/3/13
	1	18/3/06			13	4/3/13 – 16/3/13
	1	20/3/06				
	12	24/3/06 – 3/4/06		2013/14	3	20/2/14 – 22/2/14
	2	5/4/06 – 6/4/06			2	24/2/14 – 25/2/14
	2	20/4/06 – 21/4/06			8	9/3/14 – 16/3/14
					3	22/3/14 – 24/3/14
2006/07	2	14/9/06 – 15/9/06			9	27/3/14 – 4/4/14
	1	19/9/06				
	2	21/2/07 – 22/2/07		2014/15	2	20/3/15 – 21/3/15
	8	27/2/07 – 6/3/17			1	27/3/14
	1	29/3/07			2	2/4/15 – 3/4/15
	4	3/4/07 – 7/4/07				
	1	10/4/07		2015/16	8	25/12/15 – 1/4/16
					3	3/1/16 – 5/1/16

Table 3 (continued). Cardrona River Upstream of Mt Barker – Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2015/16 (cont)	1	8/1/16				
	1	15/1/16				
	2	17/1/16 – 18/1/16				
	2	20 /1/16 – 21/1/16				
	3	24 /1 /16 – 26/1/16				
	2	29 /1/16 – 30/1/16				
	1	17 /2 /16				
	6	23 /2/16 – 28/2/16				
	2	5/3/16 – 6/3/16				
	4	11/3/16 – 14/3/16				
	1	18 /3/16				
	3	29 /3 /16 – 31/3/16				
2016/17	0					
2017/18	2	28/12/17 – 29/12/17				
	5	31/12/17 – 4/1/18				
	3	8/1/18 – 10/1/18				
	3	13/1/18 – 15/1/18				
	5	19/1/18 – 21/1/18				
	2	15/2/18 – 16/2/18				
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	1	18/2/23				
2023/24	6	17/2/24 – 22/2/24				
	2	28/2/24 – 29/2/24				
	1	3/3/24				
	5	10/3/24 – 14/3/24				
	7	18/3/24 – 24/3/24				

Table 4. Cardrona River Downstream of Mt Barker – Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2014/15	0					
2015/16	1	16/4/16				
	1	27/4/16				
2016/17	242					
2017/18	242					
2018/19	242					
2019/20	242					
2020/21	242					
2021/22	242					
2022/23	242					
2023/24	242					

Table 5. Luggate Creek - Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	10	2/3/17 – 11/3/17				
	11	16/3/17 – 26/3/17				
	15	28/3/17 – 11/4/17				
	7	23/4/17 – 30/4/17				
2017/18	47	16/12/17 – 31/1/18				
	14	6/2/18 – 19/2/18				
2018/19	3	4/3/19 – 6/3/19				
	4	21/3/19 – 24/3/19				
2019/20	5	2/4/20 – 6/4/20				
	4	9/4/20 – 12/4/20				
2020/21	6	16/12/20 – 21/12/20				
	1	23/12/20				
	5	28/12/20 – 1/1/21				
	16	17/2/21 – 4/3/21				
	1	14/3/21				
	27	17/3/21 – 12/4/21				
	2	29/4/21 – 30/4/21				
2021/22	8	25/1/22 – 1/2/22				
	1	17/2/22				
	2	28/2/22 – 1/3/22				
	2	5/3/22 – 6/3/22				
	25	12/3/22 – 5/4/22				
	5	7/4/22 – 11/4/22				
	7	14/4/22 – 20/4/22				
	9	22/4/22 – 30/4/22				
2022/23	10	24/1/23 – 7/2/23				
	1	4/2/23				
	14	8/2/23 – 21/2/23				
	6	27/2/23 – 4/3/23				
	2	7/3/23 – 8/3/23				
	1	12/3/23				

Table 6. Arrow River - Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	10	31/12/11 – 9/1/12		2020/21	1	27/3/21
	2	11/1/12 – 12/1/12			1	1/4/21
	10	17/1/12 – 26/1/12			6	4/4/21 – 9/4/21
	8	29/1/12 – 5/2/12				
	1	19/2/12		2021/22	18	19/3/22 – 5/4/22
					5	7/4/22 – 11/4/22
2012/13	27	18/2/13 – 16/3/13			8	13/4/22 – 20/4/22
	35	20/3/13 – 23/4/13			8	23/4/22 – 30/4/22
	2	25/4/13 – 26/4/13				
	1	28/4/13		2022/23	0	
	1	30/4/13				
				2023/24	9	5/1/24 – 13/1/24
2013/14	0				4	15/1/24 – 18/1/24
2014/15	0					
				2023/24	1	22/1/24
2015/16	8	5/2/16 – 11/2/16			1	3/3/24
	4	13/2/16 – 16/2/16			1	8/4/24
	4	22/2/16 – 25/2/16				
	1	27/2/16				
	10	5/3/16 – 14/3/18				
	2	17/3/18 – 18/3/18				
	2	22/3/18 – 23/3/18				
	6	26/3/18 – 31/3/18				
	3	5/4/18 – 7/4/18				
	18	13/4/18 – 30/4/18				
2016/17	0					
2017/18	4	13/2/18 – 16/2/18				
	1	18/2/18				
2018/19	0					
2019/20	1	25/3/20				
	3	4/4/20 – 6/4/20				
	5	8/4/20 – 12/4/20				

Table 7. Pomahaka River - Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2013/14	0					
2014/15	9	26/1/15 – 23/1/15				
2015/16	1	17/2/16				
2016/17	0					
2017/18	1	15/1/18				
	1	19/1/18				
	1	24/1/18				
	1	1/2/18				
2018/19	6	22/3/19 – 27/3/19				
	5	1/4/19 – 5/4/19				
2019/20	0					
2020/21	6	9/4/21 – 14/4/21				
2021/22	4	13/3/22 – 16/3/22				
	3	19/3/22 – 21/3/22				
	2	6/4/22 – 7/4/22				
	3	11/4/22 – 13/4/22				
	4	18/4/22 – 21/4/22				
2022/23	1	14/2/23				
	1	22/2/23				
	2	3/3/23 – 4/3/23				
	2	6/3/23 – 7/3/23				
	1	9/3/23				
	1	13/3/23				
2023/24	2	3/3/24 – 4/3/24				

Table 8. Waipahi River - Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	0			2021/22	1	19/1/22
					3	26/1/22 – 28/1/22
2012/13	2	26/3/13 – 26/3/13			1	3/2/22
	5	29/3/13 – 2/4/13			2	27/2/22 – 28/2/22
	6	8/4/13 – 13/4/13			1	7/4/22
	2	15/4/13 – 16/4/13			1	13/4/22
	2	23/4/13 – 24/4/13			2	21/4/22 – 22/4/22
2013/14	0			2022/23	1	2/2/23
					1	23/2/23
2014/15	0				1	2/3/23
					1	13/3/23
2015/16	0				1	21/3/23
2016/17	0					
2017/18		No data				
		No data				
		No data				
2020/21	1	3/3/21		2023/24	0	
	1	8/3/21				
	2	11/3/21 – 12/3/21				
	1	17/3/21				
	2	3/4/21 – 4/4/21				
	2	17/4/21 – 18/4/21				
	2	25/4/21 – 26/4/21				

Table 9. Low Burn – Days When Between 0% and 50% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2012/13	1	4/4/13		2017/18	1	9/1/18
	1	7/4/13			5	13/1/18 – 17/1/18
	2	10/4/13 – 11/4/13			12	20/1/18 – 31/1/18
	7	13/4/13 – 19/7/13			3	14/2/18 – 16/2/18
					1	18/2/18
2013/14	6	17/2/14 – 22/2/14				
	4	24/2/14 – 27/2/14		2018/19	1	3/4/19
	2	1/ 3/14 – 2/3/14			2	8/4/19 – 9/4/19
	13	5/ 3/14 – 17/3/14				
	17	19/3/14 – 4 /4/14		2019/20	12	1/4/20 – 12/4/20
	11	7/4/14 – 17 /4/14			4	14/4/20 – 17/4/20
	9	19 / 4/ 14 – 27/ 4/14			3	24/4/20 – 26/4/20
	1	30/4/14			1	30/4/20
2014 /15	2	24/1/15 – 26/1/15		2020/21	12	1/4/21 – 12/4/21
	2	28/1/15 – 29/1/15			1	15/4/21
	9	13/2/15 – 21/2/15			13	18/4/21 – 30/4/21
	5	23/2/15 – 27/2/15				
	1	1/3/15		2021/22	4	3/3/22 – 6/3/22
	3	4/3/15 – 6/3/15			34	9/3/22 – 11/4/22
	48	9/3/15 – 25/4/15			18	13/4/22 – 30/4/22
	2	29/4/15 – 30/4/15				
				2022/23	2	25/1/23 – 26/1/23
2015/16	1	2/1/16			13	9/2/23 – 21/2/23
	9	7/1/16 – 15/1/16			6	27/2/23 – 4/3/23
	6	22/1/16 – 27/1/16			1	1/4/23
	19	29/1/16 – 16/2/16				
	22	22/2/16 – 14/3/16		2023/24	6	8/1/24 – 13/1/24
	23	16/3/16 – 7/4/16			3	16/1/24 – 18/1/24
	3	9/4/16 – 11/4/16			2	31/1/24 – 1/2/24
	18	13/4/16 – 30/4/16			6	5/2/24 – 10/2/24
					21	12/2/24 – 3/3/24
2016/17	11	1/4/17 – 11/4/17			21	6/3/24 – 26/3/24
	8	22/4/17 – 29/4/17			14	28/3/24 – 10/4/24
					11	15/4/24 – 25/4/24
					4	27/4/24 – 30/4/24

Tables Between 50% and 100% Irrigation Availability

Table 1. Kakanui River – Days When Between 50% and 100% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2010/11	7	14/11/10 – 20/11/10		2015/16 (cont)	6	5/12/15 – 10/12/15
	5	26/11/10 – 30/11/10			1	15/12/15
	1	2/12/10			5	27/12/15 – 31/12/15
					1	2/1/16
2011/12	7	21/12/11 – 27/12/11			8	15/2/16 – 22/2/16
	1	1/1/12			2	17/3/16 – 18/3/16
	1	9/1/12				
	8	21/4/12 – 28/4/12		2016/17	5	14/1/17 – 18/1/17
					4	8/3/17 – 11/3/17
2012/13	5	17/2/13 – 21/2/13				
	1	24/2/13		2017/18	5	30/11/17 – 4/12/17
	1	20/3/13			2	6/12/17 – 7/12/17
					1	13/12/17
2013/14	1	10/11/13			1	16/12/17
	4	14/11/13 – 17/11/13			1	20/12/17
	2	21/11/13 – 22/11/13			1	24/12/17
	2	6/12/13 – 7/12/13			1	19/1/18
	1	9/12/13			1	22/1/18
	2	13/12/13 – 14/12/13				
	5	8/2/14 – 12/2/14		2018/19	1	13/2/19
					7	19/2/19 – 25/2/19
2014/15	8	30/11/14 – 7/12/14			1	28/2/19
	2	11/12/14 – 12/12/14			6	3/3/19 – 8/3/19
	4	15/12/14 – 18/12/14			5	11/3/19 – 15/3/19
	1	25/12/14			6	23/3/19 – 28/3/19
	1	3/1/15			3	6/4/19 – 8/4/19
	11	17/2/15 – 27/2/15			2	10/4/19 – 11/4/19
	2	2/3/15 – 3/3/15			9	17/4/19 – 25/4/19
	1	7/3/15			1	27/4/19
					1	29/4/19
2015/16	1	13/11/15				
	5	15/11/15 – 19/11/15		2019/20	1	8/12/19
	2	22/11/15 – 23/11/15			5	12/12/19 – 16/12/19
	1	28/11/15			9	20/1/20 – 28/1/20
	3	1/12/15- 3/12/15			1	4/2/20
					6	29/2/20 – 5/3/20
					3	23/3/20 – 25/3/20
					2	29/3/20 – 30/3/20

Table 1 (continued). Kakanui River – Days When Between 50% and 100% Irrigation Allocation Water is Available – Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2020/21	9	22/11/20 – 30/11/20				
	1	5/12/20				
	3	10/12/20 – 12/12/20				
	3	14/12/20 – 16/12/20				
	4	16/3/21 – 17/3/21				
	2	22/3/21 – 23/3/21				
	2	27/4/21 – 28/4/21				
2021/22	3	31/1/22 – 2/2/22				
2022/23	2	7/2/23 – 8/2/23				
	3	12/2/23 – 14/2/23				
	1	18/2/23				
	1	22/2/23				
2023/24	2	10/12/23 – 11/12/23				
	2	13/12/23 – 14/12/23				
	3	17/12/23 – 19/12/23				
	2	23/12/23 – 24/12/23				
	1	13/1/24				
	7	15/1/24 – 21/1/24				
	1	23/1/24				
	8	26//1/24 – 2/2/24				
	2	5/2/24 – 6/2/24				
	1	14/2/24				
	1	30/3/24				
	3	21/4/24 – 23/4/24				
	1	25/4/24				
	2	29/4/24 – 30/4/24				

Table 2. Kauru River - Days When Between 50% and 100% Irrigation Allocation Water is Available - Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	0					
2017/18	1	3/12/17				
	2	7/12/17 – 8/12/17				
	1	19/12/17				
	2	25/12/17 – 26/12/17				
	1	13/1/18				
2018/19	1	5/3/19				
	1	27/3/19				
	1	24/4/19				
2019/20	4	5/3/20 – 8/3/20				
	1	13/3/20				
2020/21	1	15/12/20				
	2	18/12/20 – 19/12/20				
	2	21/2/21 – 22/2/21				
	2	29/4/21 – 30/4/21				
2021/22	0					
2022/23	2	7/2/23 – 8/2/23				
	2	10/2/23 – 11/2/23				
2023/24	1	21/12/23				
	1	20/1/24				
	1	4/2/24				
	1	12/2/24				
	2	17/3/24 – 18/3/24				
	1	28/3/24				
	1	1/4/24				
	1	5/4/24				
	1	7/4/24				

Table 3. Cardrona River Upstream of Mt Barker – Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2000/01	2	14/2/01 – 15/2/01		2005/06 (cont)	1	8/3/06
	11	17/3/01 – 27/3/01			1	22/3/06
	3	7/4/01 – 9/4/01			1	4/4/06
	9	12/4/01 – 20/4/01			1	7/4/06
	5	26/4/01 – 30/4/01			9	11/4/06 – 19/4/06
					1	22/4/06
2001/02	1	1/9/01				
	1	19/9/01		2006/07	3	11/9/06 – 13/9/06
	1	27/9/01			1	16/9/06
	7	29/9/01 – 5/10/01			2	20/9/06 – 21/9/06
	3	7/10/01 – 9/10/01			7	14/2/07 – 20/2/07
	2	20/10/01 – 21/10/01			4	23/2/07 – 26/2/07
	1	29/10/01			3	10/3/07 – 12/3/07
	1	29/3/02			9	20/3/07 – 28/3/07
	1	14/4/02			4	30/3/07 – 2/4/07
	10	18/4/02 – 27/4/02			3	7/4/07 – 9/4/07
					10	14/6/07 – 23/4/07
2002/03	2	10/2/03 – 11/2/03			3	28/4/07 – 30/4/07
	1	13/2/03				
	4	27/2/03 – 2/3/03		2007/08	4	19/9/07 – 22/9/07
	3	9/3/03 – 11/3/03			1	26/9/07
	9	13/3/03 – 21/3/03			1	9/1/08
	2	26/3/03 – 27/3/03			4	28/1/08 – 31/1/08
	1	30/3/03			3	4/2/08 – 6/2/08
	1	3/4/03			1	10/2/08
	1	16/4/03			3	12/2/08 – 14/2/08
					2	18/2/08 – 19/2/08
2003/04	2	1/9/03 – 2/9/03			1	26/2/08
	1	12/9/03			1	28/2/08
	3	23/1/04 – 25/1/04			4	8/3/08 – 11/3/08
					2	24/3/08 – 25/3/08
2004/05	0				1	29/3/08
					8	1/4/08 – 8/4/08
2005/06	5	21/9/05 – 25/9/05			10	18/4/08 – 27/4/08
	1	30/9/05				
	1	3/10/05		2008/09	1	1/9/08
	2	10/10/05 – 11/10/05			5	5/2/09 – 9/2/09
	4	1/12/05 – 5/12/05			3	14/2/09 – 16/2/09
	10	10/12/05 – 19/12/05				
	4	29/12/05 – 1/1/06		2009/10	5	30/1/10 – 3/2/10
	3	10/1/06 – 12/1/06			2	18/2/10 – 19/2/10
	1	17/1/06			1	2/3/10
	5	19/1/06 – 23/1/06			1	23/3/10
	1	15/2/06			1	25/3/10
	1	28/2/06			1	6/4/10

Table 3 (continued). Cardrona River Upstream of Mt Barker – Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2009/10 (cont)	1	13/4/10		2015/16 (cont)	3	22/3/16 – 24/3/16
	4	15/4/10 – 18/4/10			3	26/3/16 – 28/3/16
	1	24/4/10			3	5/4/16 – 7/4/16
					2	10/4/16 – 11/4/16
2010/11	0				16	15/4/16 – 30/4/16
2011/12	0			2016/17	0	
2012/13	5	23/2/13 – 27/2/13		2017/18	1	20/12/17
	2	2/3/13 – 3/3/13			3	23/12/17 – 25/12/17
	5	27/3/13 – 31/3/13			1	27/12/17
	3	2/4/13 – 4/4/13			1	30/12/17
	2	10/4/13 – 11/4/13			3	5/1/18 – 7/1/18
	5	15/4/13 – 19/4/13			2	11/1/18 – 12/1/18
					3	8/2/18 – 10/2/18
2013/14	2	11/2/14 – 12/2/14			2	13/2/18 – 14/2/18
	6	14/2/14 – 19/2/14			2	17/2/18 – 18/2/18
	3	23/2/14 – 25/2/14				
	1	28/2/14		2018/19	0	
	1	2/3/14				
	3	6/3/14 - 8/3/14		2019/20	0	
	1	17/3/14				
	2	20/3/14 – 21/3/14		2020/21	0	
	2	25/3/14 – 26/3/14				
	8	8/4/14 – 15/4/14		2021/22	2	10/4/22 – 11/4/22
	1	24/4/14				
				2022/23	1	26/1/23
2014/15	7	24/1/15 – 30/1/15			3	30/1/23 – 1/2/23
	16	12/2/15 – 26/2/15			4	14/2/23 – 17/2/23
	1	2/3/15			3	19/2/23 – 21/2/23
	1	5/3/15			1	4/3/23
	10	10/3/15 – 19/3/15				
	5	22/3/15 – 26/3/15		2023/24	6	8/1/24 – 13/1/24
	5	28/3/15 – 1/4/15			3	16/1/24 – 18/1/24
	8	4/4/15 – 8/4/15			1	9/2/24
					3	14/2/24 – 16/2/24
2015/16	5	20/12/15 – 24/12/15			1	24/2/24
	1	19/1/16			2	26/2/24 – 27/2/24
	2	27/1/16 – 28/1/16			1	9/3/24
	1	22/2/26			3	15/3/24 – 17/3/24
	1	17/3/16			2	8/4/24 – 9/4/24

Table 4. Cardrona River Downstream of Mt Barker – Days When Between 50% and 100% Irrigation Allocation Water is Available- Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2014/15	0					
2015/16	0					
2016/17	0					
2017/18	0					
2018/19	0					
2019/20	0					
2020/21	0					
2021/22	0					
2022/23	0					
2023/24	0					

Table 5. Luggate Creek - Days When Between 50% and 100% Irrigation Allocation Water is Available – 100% Availability - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2016/17	10	2/3/17 – 11/3/17		2022/23 (cont)	6	27/2/23 – 4/3/23
	11	16/3/17 – 24/3/17			2	7/3/23 – 8/3/23
	15	28/3/17 – 11/4/17			1	12/3/23
	7	23/4/17 – 29/4/17				
2017/18	7	16/12/17 – 22/12/17				
	2	18/1/18 – 19/1/18				
	3	6/2/18 – 8/2/18				
	2	11/2/18 – 12/2/18				
	3	17/2/18 – 19/2/18				
2018/19	3	4/2/19 – 6/3/19				
	4	21/3/19 – 24/3/19				
2019/20	5	2/4/20 – 6/4/20				
	4	9/4/20 – 12/4/20				
2021/21	6	16/12/20 – 21/12/20				
	1	23/12/20				
	3	28/12/20 – 30/12/20				
	1	1/1/21				
	16	17/2/21 – 4/3/21				
	1	14/3/21				
	21	17/3/21 – 6/4/21				
	3	10/4/21 – 12/4/21				
	2	29/4/21 – 30/4/21				
2021/22	8	25/1/22 – 1/2/22				
	1	17/2/22				
	2	28/2/22 – 1/3/22				
	2	5/3/22 – 6/3/22				
	15	12/3/22 – 26/3/22				
	4	29/3/22 – 1/4/22				
	5	7/4/22 – 11/4/22				
	7	14/4/22 – 20/4/22				
	4	22/4/22 – 25/4/22				
2022/23	10	24/1/23 – 2/2/23				
	1	4/2/23				
	11	8/2/23 – 18/2/23				
	1	21/2/23				

Table 6. Arrow River - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	10	21/12/11 – 30/12/11		2015/16	2	20/12/15 – 21/12/15
	1	10/1/12			19	27/12/15 – 14/1/16
	1	16/1/12			17	17/1/16 – 2/2/16
	1	28/1/12			2	20/2/16 – 21/2/16
	3	27/2/12 – 29/2/12			1	16/3/16
	1	6/3/12			3	19/3/16 – 21/3/16
	2	9/3/12 – 10/3/12			2	24/3/16 – 25/3/16
	9	1/4/12 – 9/4/12			4	1/4/16 – 4/4/16
	18	11/4/12 – 28/4/12			3	9/4/16 – 11/4/16
2012/13	8	27/1/13 – 3/2/13		2016/17	7	20/3/17 – 26/3/18
	5	7/2/13 – 11/2/13			15	28/3/17 – 11/4/17
	5	13/2/13 – 17/2/13			3	16/4/17 – 18/4/17
	2	18/2/13 – 19/2/13				
	1	24/2/13		2017/18	6	19/12/17 – 24/12/17
	1	27/2/13			7	26/12/17 – 1/1/18
	1	29/2/13			12	9/1/18 – 20/1/18
2013/14	8	5/2/14 – 12/2/14		2017/18	1	31/1/18
	7	16/2/14 – 22/2/14			6	7/2/18 – 12/2/18
	4	24/2/14 – 26/2/14			1	17/2/18
	1	2/3/14			1	19/2/18
	11	7/7/14 – 17/3/14			2	14/3/18 – 15/3/18
	17	19/3/14 – 24/4/14			3	18/3/18 – 20/3/18
	19	6/4/14 – 24/4/14				
	2	26/4/14 – 27/4/14		2018/19	1	10/2/19
					2	5/3/19 – 6/3/19
2014/15	5	7/1/15 – 11/1/15			4	2/3/19 – 15/3/19
	5	13/1/15 – 17/1/15			7	18/3/19 – 24/3/19
	9	21/1/15 – 29/1/15				
	1	8/2/15		2019/20	1	2/3/20
	16	12/2/15 – 27/2/15			3	5/3/20 – 7/3/20
	1	1/3/15			13	12/3/20 – 14/2/20
	3	4/3/15 – 6/3/15			1	26/3/20
	34	9/3/15 – 11/4/15			7	28/3/20 – 3/4/20
	2	13/4/15 – 14/4/15			1	7/4/20
	2	24/4/15 – 25/4/15			4	14/4/20 – 17/4/20
					6	21/4/20 – 26/4/20
					2	29/4/20 – 30/4/20

Table 6 (continued). Arrow River - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2020/21	11	20/2/212 – 2/3/21		2023/24	2	19/12/23 – 20/12/23
		4/3/21			3	22/12/23 – 24/12/23
	1	9/3/21			4	26/12/23 – 29/12/23
	3	12/3/21 – 14/3/21			4	1/1/24 – 4/1/24
	10	17/3/21 – 26/3/21			1	14/1/24
	4	28/3/21 – 31/3/21			1	19/1/24
	2	2/4/21 – 3/4/21			1	21/1/24
	3	10/4/21 – 12/4/21			2	25/1/24 – 26/1/24
	1	15/4/21			3	30/1/21 – 1/2/24
	5	19/4/21 – 23/4/21			7	4/2/24 – 10/2/24
	4	27/4/21 – 30/4/21			20	12/2/24 – 2/3/24
					19	6/3/24 – 24/3/24
2021/22	11	22/1/22 – 1/2/22			10	29/3/24 – 7/4/24
	8	11/2/22 – 18/2/22			2	9/4/24 – 10/4/24
	26	21/2/22 – 18/3/22			3	22/4/24 – 24/4/24
	2	21/4/22 – 22/4/22				
2022/23	1	10/1/23				
	11	16/1/23 – 26/2/23				
	4	29/1/23 – 1/2/23				
	1	4/2/23				
	14	8/2/23 – 21/2/23				
	7	26/2/23 – 4/3/23				
	2	7/3/23 – 8/3/23				
	3	10/3/23 – 12/3/23				
	2	15/3/23 – 16/3/23				
	2	18/3/23 – 19/3/23				

Table 7. Pomahaka River - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2013/14	0			2021/22 (cont)	1	11/3/22
					2	16/3/22 – 17/3/22
2014/15	2	11/1/15 – 12/1/15			1	7/4/22
	5	14/1/15 – 18/1/15				
	1	24/1/15		2022/23	3	30/1/23 – 1/2/23
					3	8/2/23 – 10/2/23
2015/16	7	11/2/16 – 17/2/16			1	12/2/23
	1	24/2/16			2	28/2/23 – 1/3/23
	4	1/4/16 – 4/4/16			1	7/3/23
	3	6/4/16 – 8/4/16				
				2023/24	6	25/2/24 – 1/3/24
2016/17	0				1	4/3/24
2017/18	3	30/12/17 – 1/1/18				
	1	3/1/18				
	2	12/1/18 – 13/1/18				
	2	22/1/18 – 23/1/18				
2018/19	5	11/2/19 – 15/2/19				
	3	24/2/19 – 26/2/19				
	2	6/3/19 – 7/3/18				
	4	18/3/19 – 21/3/19				
	2	26/3/19 – 27/3/19				
	2	29/3/19 – 30/3/19				
	1	5/4/19				
	2	9/4/19 – 10/4/19				
2019/20	0					
2020/21	9	25/3/21 – 2/4/21				
	2	6/4/21 – 7/4/21				
	3	12/4/21 – 14/4/21				
	5	21/4/21 – 25/4/21				
2021/22	2	18/1/22 – 19/1/22				
	4	5/3/22 – 8/3/22				

Table 8. Waipahi River - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2011/12	2	16/4/12 – 17/4/12				
	1	28/4/12				
2012/13	4	14/3/13 – 17/3/13				
	7	21/3/13 – 27/3/13				
	3	3/4/13 – 5/4/13				
	1	7/4/13				
	1	13/4/13				
2013/14	0					
2014/15	0					
2015/16	1	11/4/16				
2016/17	0					
2017/18		No data				
2018/19		No data				
2019/20		No data				
2020/21	2	28/2/21 – 1/3/21				
	2	17/3/21 – 18/3/21				
	1	26/4/20				
2021/22	1	16/1/22				
	1	24/1/22				
	3	13/2/22 – 15/2/22				
	2	25/2/22 – 26/2/22				
	1	7/4/22				
	1	14/4/22				
2022/23	1	5/2/23				
	2	22/2/23 – 23/2/23				
	1	13/3/23				
	2	16/3/23 – 17/3/23				
2023/24	0					

Table 9. Low Burn - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2012/13	6	29/1/13 – 3/2/13		2015/16	15	1/9/15 – 15/9/15
	37	8/2/13 – 16/3/13			12	19/9/15 – 30/9/15
	16	19/3/13 – 3/4/13			2	19/11/15 – 20/11/15
	2	5/4/13 – 6/4/13			3	22/11/15 – 24/11/15
	2	8/4/13 – 9/4/13			3	30/11/15 – 2/12/15
	1	12 /4 /13			28	5/12/15 – 1/1/16
	11	20/4/13 – 30/4/13			3	3/1/16 – 5/1/16
					6	15/1/16 – 20/1/16
2013/14	9	1/9/13 – 9/9/13			2	27/1/16 – 28/1/16
	3	17/9/13 – 19/9/13			1	17/2/16
	3	18/12/13 – 20/12/13			2	20/2/16 – 21/2/16
	2	23/12/13 – 24/12/13			1	5/3/16
	3	27/12/13 – 29/12/13			1	8/4/16
	3	31/12/13 – 2/1/14			1	12/4/16
	1	6/1/14				
	2	10/1/14 – 11/1/14		2016/17	3	1/9/16 – 3/9/16
	35	13/1/14 – 16/2/14			1	8/9/16
	1	23/2/14			4	12/9/16 – 15/9/16
	1	28/2/14			15	28/12/16 – 11/1/17
	2	3/3/14 – 4/3/14			5	13/1/17 – 17/1/17
	1	18/3/14			2	20/1/17 – 21/1/17
	1	5/4/14			9	4/2/17 – 12/2/17
	1	18/4/14			45	15/2/17 – 31/3/17
	2	28/4/14 – 29/4/14			8	14/4/17 – 21/4/17
					1	30/4/17
2014/15	11	1/9/14 – 11/9/14				
	2	17/9/14 – 18/9/14		2017/18	5	1/9/17 – 5/9/17
	4	20/9/14 – 23/9/14			3	11/9/17 – 13/9/17
	3	28/9/14 – 30/9/14			7	2/12/17 – 8/12/17
	2	16/12/14 – 17/12/14			30	10/12/17 – 8/1/18
	9	22/12/14 – 30/12/14			3	10/1/18 – 12/1/18
	24	1/1/15 – 24/1/15			2	18/1/18 – 19/1/18
	1	27/1/15			10	4/2/18 – 13/2/18
	14	30/1/15 – 12/2/15			1	17/2/18
	1	22/2/15			1	19/2/18
	1	28/2/15			11	10/3/18 – 20/3/18
	2	2/3/15 – 3/3/15			2	26/4/18 – 27/4/18
	2	7/3/15 – 8/3/15				
	3	26/1/15 – 28/4/15				

Table 9 (continued). Low Burn - Days When Between 50% and 100% Irrigation Allocation Water is Available - Irrigation Season 1 September to 30 April

Year	Number of days	Period		Year	Number of days	Period
2018/19	14	1/9/18 – 14/9/18		2022/23	5	14/9/22 – 18/9/22
	1	28/9/18			31	25/12/22 – 24/1/23
	1	12/1/19			13	27/1/23 – 8/2/23
	4	15/1/19 – 18/1/19			4	23/2/23 – 26/2/23
	8	20/1/19 – 27/1/19			15	5/3/23 – 19/3/23
	38	29/1/19 – 7/3/19			10	22/3/23 – 31/3/23
	17	9/3/19 – 25/3/19			3	2/4/23 – 4/4/23
	6	28/3/19 – 2/4/19			4	8/4/23 – 11/4/23
	4	4/4/19 – 7/4/19			12	19/4/23 – 30/4/23
	14	13/4/19 – 26/4/19				
	3	28/4/19 – 30/4/19		2023/24	6	1/9/23 – 6/9/23
					3	8/9/23 – 10/9/23
2019/20	28	1/9/19 – 28/9/19			5	12/9/23 – 16/9/23
	4	1/10/19 – 4/10/19			44	25/11/23 – 7/1/24
	2	6/10/19 – 7/10/19			2	14/1/24 – 15/1/24
	12	22/1/20 – 2/2/20			12	19/1/24 – 30/1/24
	51	10/2/20 – 31/3/20			3	2/2/24 – 4/2/24
	1	13/4/20			1	11/2/24
	6	18/4/20 – 23/4/20			2	4/3/24 – 5/3/24
	3	27/4/20 – 29/4/20			1	27/3/24
					1	4/4/24
2020/21	3	1/9/20 – 3/9/20			2	13/4/24 – 14/4/24
	7	7/9/20 – 13/9/20			1	26/4/24
	12	18/11/20 – 29/11/20				
	10	1/12/20 – 10/12/20				
	21	12/12/20 – 6/1/21				
	3	14/1/21 – 16/1/21				
	14	26/1/21 – 8/2/21				
	22	11/2/21 – 4/3/21				
	26	6/3/21 – 31/3/21				
	3	12/4/21 – 14/4/21				
	2	16/4/21 – 17/4/21				
2021/22	2	25/12/21 – 26/12/21				
	36	30/12/21 – 3/2/21				
	25	6/2/22 – 2/3/22				
	2	7/3/22 – 8/3/22				
	1	12/4/22				