Victorian Submission to Murray-Darling Basin Annual Water Take Report 2019-20

VICTORIA State Government | Environment, Land, Water and Planning

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1 Victorian Water Resource Management Overview

1.1 Introduction

This submission constitutes Victoria's 2019/20 reporting on water resources in the Murray-Darling Basin. Specifically, this submission addresses the following:

- Most likely second last year reporting on matters stipulated in Schedule E of the Murray-Darling Basin Agreement for each designated river valley, including on compliance against Cap targets
- First year reporting on matters stipulated in Section 71 of the *Water Act 2007* (Commonwealth) for each Water Resource Plan (WRP) area (both surface water and groundwater), insofar as those matters are applicable in 2019/20.

As required by Section 71 reporting, this submission also provides reporting on Matters 9.1 and 9.2 in Schedule 12 of the Basin Plan, which relate to the identification of environmental water and the monitoring of its use. Information is also provided about Victoria's approach and progress towards reporting under the Basin Plan.

This report highlights the key information for 2019/20 Cap compliance and Section 71 reporting and provides context and analysis. It is structured as follows

- Chapter 1 - Victorian water resource management overview,
- Chapter 2 - Cap Compliance,
- Chapter 3 - Section 71 reporting,
- Chapter 4 - Environment water - held and planned, and
- Chapter 5 - Progress of water reform.

1.2 Achievements and Outcomes in Water Resource Management

Compliance with Sustainable Diversion Limits (SDLs) under Section 71 of the *Water Act 2007* (Commonwealth) came into effect on 1 July 2019 and Victoria has Water Resource Plans (WRPs) for its WRP areas accredited for the SDL compliance reporting. Significant achievements in 2019/20 include:

- Completion of Baseline Diversion Limit (BDL) and interim WRP models for Northern Victorian systems as part of accreditation of Victoria's North and Murray WRP to the Murray Darling Basin Authority (MDBA).
- Significant progress towards Victoria's water recovery targets through water savings projects and SDL offsets.
- Development and submission of the Annual Environmental Watering Priorities to the MDBA consistent with the Basin Plan.
- Submission of a comprehensive report on salinity management activities undertaken across northern Victoria in 2018/19 and preparation for the submission of the BSM2030 Status Report for 2019-20 to the MDBA.
- Completion of an independent review of a foundational version of the Source model representing baseline conditions for Northern Victoria, and significant work has been undertaken to address the

review recommendations and improve the model, with aim to replace the REALM version of the BDL model once this model is deemed fit-for-purpose.

- Application of Source Murray Model for estimation of Annual Permitted Take for Victorian Murray, Kiewa and Ovens SDL resource units for the first time.
- Development of preliminary Source model of Wimmera-Mallee system including completion of derivation of more than 100 years of daily model inputs.
- Significant work for transitioning from only Cap reporting to both Cap and SDL compliance reporting, including improvements to the reporting spreadsheet template to capture both Cap and SDL compliance reporting.
- Victoria continued work with environmental water holders to develop new and review existing environmental water accounting methods.

Current administration and assessment tools under the Cap have underpinned the development of the WRPs. Existing arrangements will be improved by selection and implementation of appropriate monitoring methods for unregulated use, interception activities and groundwater use.

Victoria also continues to work with the MDBA to improve the method to adjust the Cap or annual permitted take under SDL compliance for environmental water recovery not explicitly in Cap or Water Resource Plan models.

Now that the SDLs are in effect, continued Cap compliance reporting is unnecessary. Reporting on both the Cap and the SDLs increases the complexity of communication messages to stakeholders and the community as well as adding to the workload for Basin States. Victoria's view on this matter is that the Cap reporting should not be continued beyond June 2021, with 2020-21 being the final year to report against both the Cap and the SDLs. Victoria continues to work collaboratively with the MDBA and other jurisdictions for the repeal of the Cap reporting and compliance obligations under Schedule E of the Murray-Darling Basin Agreement.

1.3 Water Resource Availability

Following a warm autumn with below average rainfall, 2019/20 started with below average winter rainfall. Dry conditions continued into spring, which was warmer and much drier than average, with Victoria recording its eighth driest October on record. These conditions resulted in well below average inflows to the storages and a lower volume of stored resource heading into summer than the last few years.

Overall, Victoria had a very dry and hot December. January and February were wetter than average with thunderstorms producing localised heavy falls on several occasions.

Following these summer conditions, autumn was wetter than average for most of Victoria, particularly in April. The wetter conditions combined with limited water availability resulted in lower than usual autumn demand.

In 2019/20, seasonal determinations in Northern Victoria started low and gradually increased across the season. Seasonal determinations in the Victorian Murray and Broken systems were the lowest since 2008/09 and in the Goulburn and Loddon systems, they were the lowest since 2009/10. Table

1 details the final 2019/20 seasonal determinations for High Reliability Water Shares (HRWS) and Low Reliability Water Shares (LRWS).

Table 1. Final 2019/20 seasonal determinations

Regulated system	Final Seasonal Determination (HRWS)	Final Seasonal Determination (LRWS)
Murray	66%	0%
Goulburn	80%	0%
Campaspe	80%	0%
Loddon	80%	0%
Broken	2%	0%
Bullarook	100%	100%
Wimmera- Mallee	42%	0%

Only entitlement holders in the Bullarook system received a full seasonal determination in 2019/20. Across the other systems seasonal determinations ranged between 2% high reliability for the Broken system and 80% high reliability for the Goulburn, Loddon and Campaspe systems. The Commonwealth Environmental Water Holdings in the Wimmera-Mallee system did not receive an seasonal determination in 2019/20.

The carryover policy in the Murray, Goulburn and Campaspe systems allows unused water to be carried over by entitlement holders into the following year, with any water above their entitlement volumes being subject to spills or pre-releases that occur from Lake Hume, Lake Eildon or Lake Eppalock respectively. The volume carried over in excess of the entitlement volumes is held in spillable water accounts until a low risk of spill declaration is made for the relevant system. Spillable water accounting also applies in the Wimmera-Mallee system. There were no deductions in 2019/20 from spillable water accounts in any of the eligible systems. Carryover in other Northern Victorian regulated systems is limited type and not subject to any spill accounting. The carryover and current season allocation in those systems are limited to entitlement volume and the maximum volume that an entitlement holder can carry over is limited to 50% of entitlement.

In Victoria, diversions from unregulated waterways are estimated to be less than 2 per cent of total diversions. Restrictions to access of unregulated waterways were implemented across northern Victoria, as discussed further in Section 2.

1.4 Water Resource Use and Trade

Victorian systems diverted a total of 1,828 GL for consumptive water use from the Murray-Darling Basin during 2019/20, less than the total volume diverted in each of the last two seasons. Demand in 2019/20 decreased on the previous year due to lower water availability.

The volume diverted in the designated Murray/Kiewa/Ovens valley for consumptive use was 1,000 GL. A volume of 784 GL was diverted in the Goulburn/Broken/Loddon river valleys. The Campaspe River and Wimmera-Mallee valley consumptive diversions were 26.3 GL and 17.4 GL respectively.

The total volume delivered to Northern Victorian regulated systems for consumptive water use during 2019/20 was 1,258 GL. This is 680 GL less than the volume delivered in 2018/19. The total Victorian usage in 2019/20 was 62 per cent of the total volume allocated[1]. Deliveries in the Murray/Kiewa/Ovens designated valley were 851 GL in 2019/20, 308 GL less than the delivery of 1,159 GL in the previous year. Deliveries in the Goulburn/Broken/Loddon valley were 275 GL this year, less than half of the 601 GL delivered last year. Campaspe valley deliveries were 118 GL, compared to 162 GL delivered in 2018/19.Total Wimmera-Mallee deliveries, including water diverted from other valleys, were 15.4 GL in 2019/20, 1.6 GL less than the 16.9 GL delivered last year.

There was a net allocation trade of consumptive water into Victoria of 124.9 GL in 2019/20. This is the opposite direction of the net trade observed the last few years. This was partly due to lower water availability in both the Goulburn and Murray systems.

Interstate allocation trading of consumptive water between Victoria and New South Wales resulted in an overall net transfer into Victoria of 99.4 GL. This volume included net allocation trade of 98.0 GL to Victoria from NSW Murray and 1.4 GL to Victoria from the Murrumbidgee River basin. There was no trade between the Darling River and Victoria. Trade with South Australia resulted in a total net allocation trade of consumptive water of 25.5 GL from South Australia to Victoria, a change in direction from the 29.3 GL traded to South Australia in 2018/19.

The total volume of environmental water available for use in 2019/20 was 1,194 GL. The total use of environmental water this year was 840 GL. The net consumptive use, after the environmental recredits for returned flows are granted to environmental water holders, was 151 GL in comparison to 113 GL in 2018/19. Of the volume delivered for environmental purposes the largest volume of use was in the Goulburn and Murray systems, with 422 GL and 365 GL respectively. In 2019/20, 689 GL was recredited[2] to environmental accounts in downstream systems. This volume made up the majority of the 733 GL of environmental water delivered to South Australia via trade.

There was no trade from environmental entitlement holders to consumptive users, and 307 ML was traded from consumptive users to the environment as either donations and or as part of the process of transferring water savings holdings to the environmental water holders.

1.5 Assessment Tools and Data

1.5.1 Interception Diversion

Victoria has developed appropriate methods to estimate take from interception activities for Basin Plan reporting purposes. This includes take from runoff dams and commercial plantations.

The approach for commercial plantations is based on a catchment water balance model which is considered to provide the best available information. The annual permitted net take of water by commercial plantations is estimated based on the long-term average rate of evapotranspiration from plantations compared to the vegetation type that was present before the plantation was established.

[1] Volume allocated is the total of current season allocation, carryover from past season and net trade.

[2] Recredit occurs when residual portion of environmental water orders from upstream system flows to downstream system

A hydrological model for estimating take by stock and domestic (basic rights) runoff dams, has been developed by Victoria based on the best available data. Annual take by stock and domestic runoff dams is based on the best estimate of the long-term average annual take using this hydrological model.

All runoff dams used for irrigation or commercial purposes in Victoria are fully included in the capped entitlement system. While hydrological modelling could be used to estimate take by these dams, the modelling outputs have a very high degree of uncertainty. Consequently, the recorded entitlement volume of the dams is considered a more reliable estimate of their take. Therefore, estimated take for these licensed dams is based on entitlement volume.

1.5.2 Unregulated Diversion

In Victoria, unregulated watercourse diversions are estimated to represent less than 2 per cent of total diversions. In previous years, fit-for-purpose approaches have been used to estimate both long-term average unregulated usage and annual unregulated usage. In both cases, the approach adopted estimates the unregulated use based on regulated usage. Similar to previous years, an improvement to the estimation of unregulated use has been made by using some available metered unregulated use data to extrapolate total unregulated use in 2019/20. For unregulated diversions, the annual permitted take was set equal to the actual use in accordance with Victoria's accredited water resource plans.

1.5.3 Regulated Diversion

All of the models used by Victoria to calculate Cap targets for regulated systems have been approved by the MDBA. The models used for the Goulburn/Broken/Loddon, Campaspe and Wimmera-Mallee Cap valleys were developed by Victoria while the model used for the Victorian Murray/Kiewa/Ovens Cap valley was developed by the MDBA. In the case of the Wimmera-Mallee system, two new Cap models have been approved by the MDBA to calculate Cap targets, a post pipeline model to be used from July 2011 to June 2013 and a post irrigation model to be used from July 2013. These models represent the completion of all pipeline projects in the Wimmera-Mallee system and the sale of irrigation entitlements in the Wimmera-Mallee system respectively.

The models used by Victoria for estimation of annual permitted takes for regulated systems are those submitted as part of Wimmera-Mallee Water Resource Plan and Victoria's North and Murray Water Resource Plan. The models for Goulburn, Broken, Campaspe, Loddon and Wimmera-Mallee Sustainable Diversion Limit (SDL) units were developed by Victoria and those for Victorian Murray, Kiewa and Ovens SDL units were developed by MDBA on behalf of Victoria.

Data inputs for all the models used are extended annually to undertake the Cap audit and SDL compliance. As part of the data extension process, improvements to data estimation techniques are included where possible. Any changes that impact on Cap assessment are explained in the following paragraphs.

The model used to estimate Cap targets for the Goulburn/Broken/Loddon and Campaspe valleys was approved by the then Murray-Darling Basin Commission at Meeting 93 on 4 September 2007. This model was re-calibrated for improved Campaspe Irrigation District diversion data and re-approved by the MDBA on 10 May 2012. In extending model inputs to 2019/20 for the Goulburn/Broken/Loddon and Campaspe Cap valleys, there were differences in May and June streamflow data from those used in the 2018/19 update. There were also changes in inflow inputs due to retrospective corrections in streamflow ratings. These led to changes in cumulative Cap credits from 1997/98 to 2018/19, which are net decreases of 22.1 GL (~ 1.1% of long-term average

Cap) and 0.4 GL (~ 0.3% of long-term average Cap) for the Goulburn/Broken/Loddon and Campaspe valleys respectively.

Regression models are used for the Kiewa and Ovens valleys. These were developed by the MDBA as part of their development of a computer simulation model for the Murray which includes the Victorian Murray. Both the regression models and the computer simulation model, excluding the Lower Darling component, were approved by the then Murray-Darling Basin Commission at Meeting 96 on 26 August 2008. The Murray model has since undergone several updates and the updated model has been used for the 2019/20 assessment. Updates as part of input data extension to 2019/20 for the Victorian Murray/Kiewa/Ovens models have resulted in very small net increase of 152 ML to the cumulative Cap credit from 1997/98 to 2018/19, which is less than 0.1% of the long-term average valley Cap.

The Wimmera-Mallee Post Irrigation entitlement sale model has been used to calculate the 2019/20 Cap target for the Wimmera-Mallee valley. This model was approved by the MDBA on 6 November 2013. The Wimmera-Mallee Post Pipeline model operated over the 114-year period from July 1895 to June 2009 yields a long-term annual diversion of 44.2 GL/year, not including unregulated diversion outside the model area. In extending model inputs to 2019/20 for the Wimmera-Mallee Cap valley, there were minor differences in May and June streamflow data from those used in the 2018/19 update. There were changes in some inputs due to changes in water balance methods as result of some gauges being discontinued and other gauges being operated, and also due to retrospective corrections in streamflow ratings. These led to a decrease of 2.5 GL in cumulative Cap credits from 1997/98 to 2018/19.

On 30 October 2010 the MDBA approved Victoria's proposed method for Cap adjustment for environmental water recovery that is required under the Murray-Darling Basin Agreement Schedule E protocol "Adjusting Caps on Diversions for Environmental Entitlements and Uses." Similar to previous years, the Environmental Use method has been applied to 2019/20 Cap targets to account for water recovered for the environment through initiatives such as Snowy environmental flows, The Living Murray (TLM) and Commonwealth purchases. A sliding scale method was used for the decommissioning of Lake Mokoan. The MDBA agreed to continue using this method until the Basin Plan comes into effect. Victoria continuously worked on development of hydrological models of regulated systems for calculating baseline and sustainable diversion limits and submitted the baseline diversion limit and interim WRP models as part of Victoria's North and Murray WRP.

For the purpose of SDL accounting, the modelled annual permitted take for 2019/20 was adjusted by a scaling method that accounts for different types of entitlements recovered for the environment but not included in the model

1.5.4 Groundwater Take

Information used to inform this work from the Victorian Water Register is subject to minor changes or amendments following the validation process. Additional information for trade and carryover was provided by Rural Water Corporations. The reporting is considered to be consistent with the accredited Wimmera-Mallee and Victoria's North and Murray WRPs.

The permitted take is based on the SDL for the respective SDL resource units. The access entitlement is based on the sum of the licensed entitlements for all groundwater bores, and the

allocation is based on any annual restrictions in place by groundwater management area or sub-zone through a management plan.

Actual take for most of the licensed groundwater bores is measured through annual metering. All groundwater bores licensed for volume in excess of 20 ML/yr are metered, except in the Goulburn-Murray: Shepparton Irrigation Region SDL resource unit. Many bores greater than 10 ML/yr are also metered. Meters are read at least once annually. Annual take for licenced entitlements in the Goulburn-Murray: Shepparton Irrigation Region SDL resource unit is estimated based on a subset of metered bores. Take from basic rights bores (domestic and stock use) is estimated based on the number of bores less than 30 years old (given the likely life of a domestic and stock bore) with an average use of 2 ML/year per bore.

2 Cap Compliance

2.1 Cap Models: Status of Cap models

Status of Cap models and associated historical changes are covered in Section 3 of this document. In summary, for 2019/20, there was no new model accredited for any regulated system in the Victoria for Cap compliance purposes, and Victoria has submitted as part of Victoria's North and Murray WRP the baseline diversion limit and interim WRP models.

2.2 Annual Cap Compliance

Annual Cap compliance for each Cap valley is presented in this section. In summary, for 2019/20, there was no breach in Cap compliance for any Cap valley in Victoria.

Actual diversions are expected to exceed the modelled Cap targets in some years because policy changes since the introduction of Cap have altered water-use behaviour. To balance out the high variability between years, the cumulative Cap credit/debit is used for assessing Cap compliance — not each individual year's credit/debit.

The large cumulative Cap credits accrued since 1997 mean that Victoria is expected to be Cap compliant until 2019/20. Although the Cap is now superseded by Basin Plan Sustainable Diversion Limit (SDL) which reset the starting position for SDL compliance as at 1 July 2019 of zero, both Cap and SDL compliance reporting are required until the repeal of the Cap reporting and compliance obligations under Schedule E of the Murray-Darling Basin Agreement.

2.2.1 Victorian Murray, Kiewa and Ovens

Diversion from the Murray/Kiewa/Ovens valley was 999.7 GL, which is 291.2 GL less than the Cap target of 1,290.9 GL (with adjustment for trade and environmental releases). The diversion was 41.3 per cent below the long-term Cap average of 1,702 GL/year.

2.2.2 Goulburn, Broken and Loddon

Diversion from the Goulburn/Broken/Loddon Cap Valley was 784.4 GL, which is 222.3 GL less than the Cap target of 1,006.7 GL (with adjustment for trade, environmental releases, decommissioning of Lake Mokoan and inter-valley transfers). Diversions were 61.4 per cent below the long-term average Cap of 2,033.7 GL/year.

2.2.3 Campaspe

Diversion from the Campaspe valley was 26.3 GL, which is 13.4 GL below the Cap target of 39.7 GL (with adjustment for environmental releases). Diversions were 78.4 per cent below the long-term average Cap of 121.8 GL/year.

2.2.4 Wimmera-Mallee

Diversion from the Wimmera-Mallee valley was 17.4 GL, which is 10.8 GL below the Cap target of 28.2 GL. Diversions were 61.4 per cent below the long-term average Cap of 45.1 GL/year.

2.3 Victorian Murray

2.3.1 Resource Availability

There was a 2 per cent high-reliability water share seasonal determination at the start of July 2019 for Murray system entitlement holders. The seasonal determination gradually increased throughout the season to 66 per cent high-reliability water shares on 1 April 2020 (Table 1). On 1 July 2019, a declaration was made that the risk of spill at Lake Hume was low which enabled the water held in spillable water accounts to be accessed.

The Menindee Lakes remained in control of NSW during 2019/20.

At 1 July 2019 Lake Dartmouth was 64 per cent of capacity and Lake Hume was 24 per cent of capacity. Lake Hume filled to 43 per cent of capacity in late August 2019 before being drawn down to 13 per cent by the end of April 2020. Lake Dartmouth was drawn down to 46 per cent by April. Following autumn inflows, by 30 June 2020 Lake Dartmouth was at 52 per cent of capacity, and Hume was at 38 per cent of capacity. Inflows for Dartmouth and Hume in 2019/20 were 77 per cent and 50 per cent of the annual average respectively.

During 2019/20 there were restrictions to access for Murray System unregulated entitlement holders on 5 of the 8 unregulated waterways in the Upper Murray and 6 of the 10 Mitta Mitta waterways. The suspensions to access on for the Mitta Mitta waterways during 2019/20 were in place for periods ranging for approximately 4 to 7 months. Two suspensions on the Upper Murray waterways were carried over from 2018/19, one was lifted in May 2020, while the other remained in place for the entire year. On the Upper Murray waterways there was one other suspension and two restrictions to access during the year.

2.3.2 Annual Diversion

The total diversion, excluding all environmental diversions, was 975 GL for the Victorian component of the River Murray valley. The allocated volume available for consumptive use was 1,140 GL, of which 836 GL or 73.3 per cent was used by private diverters and irrigators. There was 1.7 GL of estimated diversion in the unregulated system.

North East Water returned water to the River Murray from the West Wodonga Water Treatment Plant for take by towns downstream. The total volume returned was 2.1 GL.

2.3.3 Trade

There was a net allocation trade by consumptive users into the Victorian Murray in 2019/20 of 209 GL. Within this volume there was a net allocation trade into the Victorian Murray from interstate, 7.7 GL from South Australia and 101.2 GL from New South Wales.

There was 1.7 GL of permanent high-reliability water share trade out of the Victorian Murray, including 2.0 GL trade out to non-water users. There was 116 GL of permanent high-reliability water share traded within the Victorian Murray valley.

2.4 Kiewa

2.4.1 Resource Availability

There were suspensions to access water at the start of 2019/20 for one site. During November and December 2019 there were suspensions to access water for Kiewa valley unregulated entitlement holders on a further 16 unregulated waterways. GMW lifted all suspensions in May 2020.

2.4.2 Annual Diversion

Kiewa valley use of urban entitlements was 1.1 GL or 50 per cent of the entitlement volume. A further 5.4 GL was used by private diverters.

2.4.3 Trade

There is currently no reporting on unregulated temporary and permanent trade.

2.5 Ovens

2.5.1 Resource Availability

Storage inflows in the Ovens system were below average in 2019/20 with 72 per cent and 89 per cent of average annual inflows received at Lake Buffalo and Lake William Hovell respectively. Lake Buffalo was filled from sill level between late August and early October. The storage was drawn down to 46 per cent of capacity by late April and ended the season at 59 per cent. Lake William Hovell began 2019/20 at 101 per cent capacity. Lake William Hovell was drawn down to 58 per cent of capacity by the start of March and refilled to 102 per cent by the end of June 2020.

Access to spill water entitlements on the Buffalo and Ovens Rivers, and King River ceased at the end of November 2019 and mid-December 2019 respectively when spill flows were forecast to fall below the minimum requirements in the regulated reaches. Rostering and then Level 2 restrictions were implemented in the King River for the supply of high-reliability entitlement holders in January, before returning to normal operations in February.

On 1 July 2019 there were suspensions to access for water on two unregulated waterways carried over from the previous year, both of which were lifted by the end of July 2019. During 2019/20 there were suspensions and rostering of access for Ovens System unregulated entitlement holders on 20 of the total 26 unregulated waterways. All restrictions to access were lifted between late March and mid-May.

2.5.2 Annual Diversion

Diversion in the Ovens valley and regulated tributaries for private irrigation, domestic and stock, commercial, industrial and urban purposes was 13.7 GL or 32 per cent of the volume available for use in 2019/20. A further 5.4 GL was estimated to be taken in the unregulated system.

2.5.3 Trade

Current rules on trading restrict allocation trade to remain within the Ovens valley. There was 1.9 GL of allocation trade within the Ovens valley.

There was 1.8 GL of permanent high-reliability water share traded within the Ovens valley.

2.6 Broken

2.6.1 Resource Availability

The Broken River system seasonal determinations started at 0 per cent on 1 July 2019, and remained there until mid-March when a 2 per cent seasonal determination of high-reliability water shares was possible (see Table 1). This was the lowest final seasonal determination since 2008/09.

Lake Nillahcootie was 26 per cent full on 1 July, increased to 40 per cent by the start October and was drawn down to 21 per cent by the start of April 2020. Significant autumn inflows resulted in Lake Nillahcootie ending 2019/20 at 67 per cent of capacity. Inflows to Lake Nillahcootie for 2019/20 were 48 per cent of the annual average.

On 1 July 2019 there were suspensions to access for water on two unregulated waterways carried over from the previous year, one of which were lifted by the end of July 2019, the other remained in place for the whole season. During 2019/20 suspensions were implemented for access for Broken valley unregulated entitlement holders on the three unrestricted unregulated waterways, before being lifted again between late April and early May.

2.6.2 Annual Diversion

Diversion from the Broken system for consumptive use was 7.1 GL and use of the total allocated volume was 3.2 GL or 53.1 per cent utilisation. A further 0.8 GL was estimated to be taken in the unregulated system.

2.6.3 Trade

There was a net volume of consumptive allocation trade into the Broken of 10 ML. A total of 549 ML was traded out of the Broken system consumptive pool.

There was 1.2 GL of permanent high-reliability water share traded within the Broken system.

2.7 Goulburn

The Goulburn River system supplies private diverters, environmental entitlements and an extensive irrigation network. The irrigation network supplied from the Goulburn River system via the Waranga Western Channel is physically located across three Cap valleys. Although physically located within the Campaspe and Loddon catchments, the Rochester Irrigation Area and Loddon Valley Irrigation Area are supplied primarily by Goulburn sourced entitlements which are subject to the Goulburn system seasonal determinations and the Goulburn SDL reporting. For Cap reporting these irrigation areas were previously reported on in the Cap valleys they were geographically located in.

2.7.1 Resource Availability

High-reliability water share entitlement holders in the Goulburn system received an initial seasonal determination on 1 July 2019 of 2 per cent. The seasonal determination reached 80 per cent of high-

reliability water shares on 1 April 2020 (see Table 1). There has been no seasonal determination of low-reliability water shares since 1997/98.

Lake Eildon was 38 per cent full at the start of July 2019 and reached 48 per cent in mid-September. At the end of June, Lake Eildon was 49 per cent of capacity. Inflows into Lake Eildon were 92 per cent of average, and unregulated inflows into Goulburn Weir were 75 per cent of average. A low risk of spill declaration was made on 1 July 2019 allowing customers access to water in spillable water accounts. There were no deductions from spillable water accounts in the Goulburn system in 2019/20.

There was one suspension carried forward from 2018/19. During 2019/20 suspensions to access for Goulburn valley unregulated entitlement holders were implemented for 7 unregulated waterways and rostering of access on one unregulated waterway. These restrictions to access went for between 2 and 7 months, with all restriction lifted by mid-May.

2.7.2 Annual Diversion

The total volume allocated for use to consumptive users in the Goulburn system was 739 GL. Usage in the Goulburn system by consumptive users was 370 GL. A further 6.6 GL was estimated to be taken in the unregulated system.

The total diversion by users during 2019/20 in the Goulburn valley was 758 GL. Of this diversion. A total of 0.8 GL was transferred from north to south of the Great Dividing Range to Melbourne Water from the Goulburn River and Silver and Wallaby creeks which are tributaries of the Goulburn River.

2.7.3 Trade

The net volume of consumptive allocation trade out of the Goulburn system was 72 GL. A total of 89 GL was traded in, while 161 GL was traded out.

There was 36.4 GL of permanent high-reliability water share traded within the Goulburn valley. There was a net 23.3 GL of permanent high-reliability water share trade out of the Goulburn valley, of which 9.8 GL was traded to non-water users.

2.8 Campaspe

The Campaspe River system supplies private diverters, environmental entitlements and the Coliban water supply system. Although physically located within the Campaspe catchment, the Rochester Irrigation Area receives its water from the Goulburn system via the Waranga Western Channel. Seasonal determinations to irrigators in the Rochester Irrigation Area are the same as those in the Goulburn system. For Cap reporting the irrigation area was previously reported on in the Campaspe valley where it was geographically located. Rochester Irrigation Area is now part of the Goulburn designated river valley for SDL compliance.

2.8.1 Resource Availability

Seasonal determinations for high reliability entitlements in the Campaspe system opened at 26 per cent on 1 July and gradually increased to 80 per cent by mid-March 2020 (see Table 1). A low risk of spill declaration was made on 1 July 2019, with no deductions made from spillable water accounts in 2019/20.

Lake Eppalock was at 36 per cent on 1 July 2019 and increased to 40 per cent by mid-September. Over the course of the water year it was drawn down to 27 per cent capacity by the end of March. In 2019/20 the inflow into Lake Eppalock was only 43 per cent of average annual.

The Coliban storages started 2019/20 on 1 July at 61 per cent capacity and improved over spring. The combined volume in Coliban storages ended the year at 67 per cent capacity.

There were suspensions to access water at the start of 2019/20 for 17 of the 21 Campaspe valley unregulated waterways, 11 of which were lifted during spring. There were three waterways unrestricted for the entire year. Suspensions to access were back in place for all but one waterway, however there were 14 restrictions lifted between April and the end of the year, resulting in restrictions on only four of the 21 unregulated waterways being carried into 2020/21.

2.8.2 Annual Diversion

In 2019/20 there was no use of the Goldfields Superpipe and there was no water transferred from the Goulburn system to Lake Eppalock in 2019/20. There was 4.4 GL pumped from Lake Eppalock to Bendigo, and 253 ML pumped to White Swan Reservoir.

The 2019/20 Campaspe consumptive river system available volume was 18.2 GL of which 4.2 GL was utilised. A further 0.7 GL was estimated to be taken in the unregulated system. There was diversion of 21.4 GL in the Coliban system.

2.8.3 Trade

The net consumptive allocation trade out of the Campaspe River trading zones was 4.2 GL.

There was a net 47 ML of permanent high-reliability water share traded into the Campaspe River trading zones.

2.9 Loddon

The Loddon River system supplies private diverters and environmental entitlements. Although physically located within the Loddon catchment, the Loddon Valley Irrigation Area (also known as Pyramid Hill-Boort), receives its water from the Goulburn system via the Waranga Western Channel. Seasonal determinations to irrigators in the Loddon Valley Irrigation Area are the same as those in the Goulburn system. For Cap reporting the irrigation area was previously reported on in the Loddon valley it where it was geographically located. Loddon Valley Irrigation Area is now part of the Goulburn designated river valley for SDL compliance.

2.9.1 Resource Availability

High-reliability water share entitlement holders in the Loddon system received an initial seasonal determination on 1 July 2019 of 2 per cent. The seasonal determination reached a maximum of 80 per cent of high-reliability water shares on 1 April 2020 (see Table 1). The Bullarook regulated system received an initial seasonal determination on 1 July 2019 of 2 per cent, which increased in the next announcement on 15 July 2019 to 100 per cent both high-reliability and low-reliability water shares. (see Table 1).

The 2019/20 inflows into Tullaroop and Cairn Curran Reservoirs were 68 per cent of average inflows and 34 per cent of average respectively. On 1 July 2019, Tullaroop Reservoir held 44 per cent of capacity and Cairn Curran Reservoir was at 36 per cent of capacity. Tullaroop Reservoir increased substantially during 2019/20, receiving around 15.5 GL in August, peaking at 84 per cent. Cairn Curran and Tullaroop Reservoirs were drawn down to meet entitlement holder requirements, ending the year at 60 per cent and 39 per cent of capacity respectively.

Newlyn Reservoir and Hepburn Lagoon began the year at 76 and 55 per cent of capacity. Newlyn filled to capacity by mid-July and Hepburn by late July. Throughout the season Newlyn was drawn down to 55 per cent by mid-May and Hepburn Lagoon was drawn down to 55 per cent at the start of April.

On 1 July 2019 there were suspensions to access for water on 12 unregulated waterways carried over from the previous year, 9 of these suspensions were lifted by the end of July 2019. There were 27 further suspensions at some point in the year, some of which were lifted before the end of the year. At the end of the year there were 10 suspension to access water that continued into 2020/21.

2.9.2 Annual Diversion

Diversion from the Loddon valley by consumptive users was 19.7 GL, and use of the total allocated volume was 14.5 GL. An additional 6.5 GL was estimated to be taken in the unregulated system.

2.9.3 Trade

The net consumptive allocation trade out of the Loddon River trading zones was 7.7 GL.

There was 171 ML of permanent high-reliability water share traded within the Loddon catchment.

2.10 Wimmera-Mallee

2.10.1 Resource Availability

Water allocations for the Wimmera-Mallee Pipeline Product for the 2019/20 water year reached 42 per cent. There was no allocation against the 1 GL wetland product component of the Wimmera and Glenelg Rivers Environmental Entitlement, and the 28 GL entitlement held by the Commonwealth Environmental Water Holder.

The Wimmera-Mallee storages started 2019/20 on 1 July at a combined 33 per cent capacity. All storages were drawn down over the course of the year, resulting in a combined 23 per cent capacity on 30 June 2020.

2.10.2 Annual Diversion

For 2019/20, the diversion of regulated water sourced within the Wimmera-Mallee valley was 17.4 GL or 13.9 per cent of the allocated volume.

Total use by regulated entitlement holders was 15.4 GL and additional 1.4 GL from unregulated waterways.

2.10.3 Trade

There was 9.6 GL of allocation trade within the Wimmera-Mallee in 2019/20.

3 Section 71 reporting

3.1 Surface water overview

The WRPs developed under the Basin Plan set out water management arrangements from 2019 onwards. These plans also set out methods for determining the maximum quantity of water permitted to be taken for consumptive use during a water accounting period. Victoria's proposed methods for determining Baseline Diversion Limits (BDLs), Sustainable Diversion Limits (SDLs) and Annual Permitted Take (APT) for the assessment of compliance with the SDLs for take from regulated rivers are based on the use of hydrologic models.

There are, however, some difficulties associated with complete representations of SDL and WRP conditions in the development of hydrologic models. These include uncertainties around projects that are still in progress, such as Goulburn Constraints and finalisation of all water recovery projects and purchases, as well as the unknown behaviour of environmental water holders with regards to their use of the recovered water. These uncertainties have been acknowledged by the MDBA, who has proposed to explicitly represent in SDL and WRP versions of the hydrologic model of the Murray system only the finalised water recoveries and use a scaling by entitlement types method to post-process environmental water use in the model for the other water recoveries not yet included in the models.

Victoria has submitted BDL and interim WRP models for Victorian WRP areas to the Murray-Darling Basin Authority (MDBA) as part of accreditation of its WRPs. Tasks undertaken in 2019/20 for this include:

- Completion of Baseline Diversion Limit (BDL) and WRP models for Northern Victorian systems as part of accreditation of Victoria's North and Murray WRP to the MDBA.
- Preparation of final documentation on "Hydrologic Models for Basin Plan Compliance in the Northern Victoria Water Resource Plan Area - Baseline and Sustainable Diversion Limits and Permitted Take Method".
- Worked closely with MDBA for the development and finalisation of BDL and WRP versions of Source Murray Model (SMM) for the Victorian Murray system as part of accreditation of Victoria's North and Murray Water Resource Plan to MDBA.

Although the REALM modelling platform is currently being used for models of Northern Victorian systems, Victoria has made significant progress on the development of Source model of Northern Victorian system, along with testing of the new National Hydrological Modelling Platform, "Source". Independent review of a foundational version of the Source model representing baseline conditions for Northern Victoria was completed, and significant work was undertaken to address the review recommendations and improve the model. The aim is to replace the REALM BDL and WRP models with daily Source BDL and WRP models, once these Source models are deemed fit-for-purpose.

3.2 Annual Surface Water Permitted Take and Actual Take

Annual permitted take and actual take for each SDL resource unit is presented in this section. Methods used to estimate annual permitted take and actual take for different forms of take are as

proposed in Victoria's WRPs. For the purpose of Basin Plan Sustainable Diversion Limit (SDL) compliance, the starting SDL account balance as at 1 July 2019 is reset to zero. In summary, for 2019/20, there was no breach of SDL compliance in Victoria, namely for (i) combined Goulburn, Broken, Campaspe and Loddon SDL resource units, (ii) combined Victorian Murray, Kiewa and Ovens SDL resource units and (iii) Wimmera-Mallee SDL resource unit.

3.2.1 Victorian Murray (SS2)

Actual take from the Murray SDL resource unit for all forms of take was 1,019.4 GL, which is 330.7 GL less than the annual permitted take of 1,350.1 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 330.6 GL.

3.2.2 Kiewa (SS3)

Actual take from the Kiewa SDL resource unit for all forms of take was 23.0 GL, which is 6.6 GL less than the annual permitted take of 29.6 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 6.6 GL.

3.2.3 Ovens (SS4)

Actual take from the Ovens SDL resource unit for all forms of take was 79.0 GL, which is 14.5 GL less than the annual permitted take of 93.5 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 14.5 GL.

3.2.4 Goulburn (SS6)

Actual take from the Goulburn SDL resource unit for all forms of take was 840.3 GL, which is 280.3 GL less than the annual permitted take of 1,120.5 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 280.1 GL.

3.2.5 Broken (SS5)

Actual take from the Broken SDL resource unit for all forms of take was 40.3 GL, which is 2.5 GL less than the annual permitted take of 42.8 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 2.5 GL.

3.2.6 Loddon (SS8)

Actual take from the Loddon SDL resource unit for all forms of take was 64.7 GL, which is 55.8 GL less than the annual permitted take of 120.5 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 55.8 GL.

3.2.7 Campaspe (SS7)

Actual take from the Campaspe SDL resource unit for all forms of take was 50.2 GL, which is 13.8 GL less than the annual permitted take of 64.0 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 13.8 GL.

3.2.8 Wimmera-Mallee (SS9)

Actual take from the Wimmera-Mallee SDL resource unit for all forms of take was 48.3 GL, which is 26.5 GL less than the annual permitted take of 74.8 GL (with adjustment for trade, environmental releases and incomplete water recovery). The total adjusted cumulative account balance is credit of 26.5 GL.

3.3 Groundwater overview

3.3.1 GW2 Goulburn-Murray (GS8)

Annual Permitted take and Actual take

In the Goulburn-Murray groundwater water resource plan area the permitted take in the Goulburn-Murray: Shepparton Irrigation Region SDL resource unit was 244.1 GL and the estimated actual take was 109.22 GL. The permitted take in the Goulburn-Murray: Highlands SDL resource unit was 68.7 GL and the metered and estimated actual take was 14.63 GL. There was 0.45 GL of carry over available in the Goulburn-Murray: Highlands SDL resource unit. The permitted take in the Goulburn-Murray: Sedimentary Plain SDL resource unit was 223.0 GL and the metered and estimated actual take was 129.35 GL. There was 23.7 GL of carry over available in the Goulburn-Murray: Sedimentary Plain SDL resource unit. The permitted take in the Goulburn-Murray: deep SDL resource unit was 20.0 GL and the metered and estimated actual take was 1.1 GL. There was 0.1 GL of carry over available in the Goulburn-Murray: deep SDL resource unit.

The volume of Water Access Entitlement for the Goulbourn-Murray groundwater WRP area has varied from last year in all SDL resource units due to improvements in using Victoria's Water Register and Water Information Management Systems. The largest change is for the Goulburn-Murray: Sedimentary Plain SDL resource unit for which entitlement has increased by about 10GL.

Trade within SDL resource units

There was 0.01 GL of temporary trade and 0.03 GL of permanent trade within the Goulburn-Murray: Highlands SDL resource unit in 2019/20. There was 13.24 GL of temporary allocation trade and 5.44 GL of permanent trade within the Goulburn-Murray: Sedimentary Plain SDL resource unit in 2019/20.

Trade between SDL resource units

There was 0.19 GL of temporary trade into the Unregulated Ovens River SDL resource unit (0.036 GL from the Goulburn-Murray: Highlands SDL resource unit and 0.155GL from the Goulburn-Murray: Sedimentary Plain SDL resource unit), 0.074GL of temporary trade into the Goulburn-Murray: Highlands SDL resource unit (from the Goulburn-Murray: Sedimentary Plain SDL resource unit), and 0.044GL of temporary trade into the Goulburn-Murray: Sedimentary Plain SDL resource unit (0.029GL from the Unregulated Ovens River SDL resource unit and 0.015GL from Southern Victoria). There was 0.02 GL of temporary trade from the Goulburn-Murray: Sedimentary Plain SDL resource unit out of the Goulburn-Murray groundwater WRP area into Southern Victoria. There was 0.04GL of trade into the Deep from the Highlands.

There was 0.02GL of permanent trade into the Goulburn-Murray: Highlands SDL resource unit from the Goulburn-Murray: Sedimentary Plain SDL resource unit and 0.1GL into the Goulburn-Murray: Sedimentary Plain SDL resource unit from the Goulburn-Murray: Highlands SDL resource unit. There was 0.01GL of Permanent Trade into the Goulburn-Murray: Deep SDL resource unit from the Goulburn-Murray: Highlands SDL resource unit.

Resource Availability

The groundwater allocation was 100 per cent of licenced entitlement in the Goulburn-Murray: Shepparton Irrigation Region, 100 percent in the Goulburn-Murray: Highlands, 100 per cent in the

Goulburn-Murray: deep and 98.7 per cent in the Goulburn-Murray: Sedimentary Plain SDL resource units.

As described above, actual take was less than the Permitted Take in all SDL resource units and therefore all SDL resource units are compliant with the Basin Plan. No reasonable excuse is required.

3.3.2 GW3 Wimmera-Mallee (GS9)

Annual Permitted take and Actual take

For the Wimmera-Mallee groundwater WRP area the permitted take in the Wimmera-Mallee: Highlands SDL resource unit was 2.75 GL and the metered and estimated actual take was 1.09 GL. The permitted take in the Wimmera-Mallee: Sedimentary Plain SDL resource unit was 186.9 GL and the metered and estimated actual take was 7.2 GL. The permitted take in the Wimmera-Mallee: deep SDL resource unit was 20.0 GL and the metered and estimated actual take was 0.06 GL.

The volume of Water Access Entitlement for the SDL resource units in the Wimmera-Mallee groundwater WRP area has varied from last year in all SDL resource units due to improvements in using Victoria's Water Register and Water Information Management Systems.

There was 0.78 GL of temporary allocation trade and no permanent allocation trade within the Wimmera-Mallee: Sedimentary Plain SDL resource unit in 2019/20.

There was no trade between Wimmera-Mallee groundwater SDL resource units nor out of the Wimmera-Mallee groundwater WRP area.

Resource Availability

The allocation was 100 per cent in the Wimmera-Mallee: Highlands SDL resource unit and 100 per cent in the Wimmera-Mallee: Sedimentary Plain SDL resource unit. There was no allocation in the Wimmera-Mallee: deep SDL resource unit in 2019/20.

As described above, actual take was less than the Permitted Take in all SDL resource units and therefore all SDL resource units are compliant with the Basin Plan. No reasonable excuse is required.

4 Environmental water – held and planned

4.1 Victorian Murray

The use of regulated environmental entitlements allocation in the Victorian Murray was 365 GL, which included use of recredited water from the Goulburn, Campaspe and Victorian Murray systems. The net usage in the Victorian Murray in 2019/20 was 125 GL.

There was a net trade of 732.9 GL of environmental allocation out of the Victorian Murray system to environmental water holders in other systems. Of this volume there was a net trade of 723.5 GL traded out to South Australia from Victorian Murray environmental holdings as well as facilitating the delivery of water from the Goulburn and Campaspe river systems across the South Australian border. There was also trade of 508 GL within the Victorian Murray system for the movement of water between environmental water holders.

There was 428.6 GL of environmental water credited to the Victorian Murray system for reuse or trade downstream, originating from the Goulburn and Campaspe systems, and an additional 240 GL recredited from the Victorian Murray.

4.2 Kiewa and Ovens

The Ovens system received 162 ML of environmental water which was used to contribute toward pulses in the Buffalo and King Rivers, and a delivery to Mullimur Swamp. Of this delivery, 123 ML was provided from Commonwealth entitlements and 39 ML was donated to the Victorian Environmental Water Holder (VEWH) from a consumptive water holder. There is no held environmental water in the Kiewa valley.

4.3 Broken

There was 597 ML of environmental water delivered in the Broken system to the upper Broken Creek in 2019/20. This water was sourced from carryover and water traded into the Broken system from the Goulburn system for delivery.

4.4 Goulburn

In the Goulburn system, a total of 422 GL from The Living Murray (TLM), and Commonwealth and VEWH's entitlements were delivered to wetlands and utilised in-stream on the Goulburn River and lower Broken Creek to provide environmental freshes and maintain additional passing flows. In 2019/20, 402.5 GL was recredited to be available for use to the Vic Murray system. The volume of returns in 2019/20 was greater than the volume of use as there were recredits posted in 2019/20 from usage in June 2019, and the June 2020 recredits will be posted in 2020/21 which resulted in the annual negative net use of 1.3 GL.

Net environmental allocation trade into the Goulburn system from environmental water holders in other systems was 9.8 GL, and trade of 389 GL within the Goulburn system for movement of water between environmental water holders accounts.

4.5 Campaspe

The Campaspe River environmental entitlements were used to provide environmental freshes down the River and maintain higher passing flows in the Campaspe River. A total of 20.4 GL from the Commonwealth, the VEWH and TLM entitlements was used in 2019/20. There was 19.8 GL re-credited to the Murray system, resulting in a net use of 0.7 GL.

There was a net environmental allocation trade of 8.8 GL out of the Campaspe to environmental water holders in other systems. There was 6.4 GL of net trade within the Campaspe between environmental water holders.

4.6 Loddon

The Loddon system delivered a total of 10.6 GL for environmental purposes. The Loddon River and Serpentine Creek received a delivery of 9.4 GL of environmental water which was used to deliver environmental freshes downstream of Loddon Weir, and to maintain higher passing flows. There was 1.6 GL of environmental water delivery to Lake Meran, part of the Loddon Valley wetlands, in 2019/20. These environmental deliveries exclude the use of the River Freshening Flows volume available to the VEWH, which was not used in 2019/20. There was 6.3 GL re-credited to the Murray system, resulting in a net use of 4.3 GL.

There was 0.1 GL of environmental entitlement allocated from Newlyn Reservoir, which was carried over into 2020/21. Carryover of the same entitlement from 2019/20 was written-off during the year in accordance with the carryover rules.

There was a net 3.5 GL of environmental allocation traded out of the Loddon system to environmental water holders from other systems, and 4.3 GL of trade within the Loddon system between environmental water holders.

4.7 Wimmera-Mallee

In the Wimmera-Mallee system, 22 GL was delivered to the environment, including 82 ML from the VEWH wetland entitlement.

4.8 Planned Environmental Water Reporting

The submission of Victoria's reporting on the use of planned environmental water (PEW) in 2019/20 recognises previous discussions with the MDBA in which it was agreed that the majority of Victoria's non-held environmental water did not meet the Commonwealth definition for PEW. While much of Victoria's non-held environmental water contributes to environmental outcomes, it does not specifically meet the definition in Section 6 of the *Water Act 2007* (Commonwealth). As explained in the MDBA position statement 'Determining Planned Environmental Water' to be identified as PEW; "the water cannot, to the extent to which it is committed or preserved, be taken or used for any other purpose," which is not the case under Victoria's legislative regime for the majority of the water in the system that contributes to environmental outcomes.

Victoria has identified three forms of PEW in the Northern Victoria WRP area, two in the Ovens River system (*Upper Ovens River Water Supply Protection Area Water Management Plan* and *Bulk Entitlement (Ovens System – Goulburn-Murray Water) Order 2004*) and one in the Broken River system (*Bulk Entitlement (Broken System-Goulburn-Murray Water) Conversion Order 2004*).

There are no forms identified in the Victorian Murray or Wimmera-Mallee (surface water) WRP areas.

5 Progress of water reform

5.1 Existing Administration of the Basin Plan

Between 1995 and 1997, Victoria introduced and refined the following changes to water management in response to the Murray-Darling Basin Ministerial Council's decision to Cap water use:

- restrictions on temporary and permanent water trading,
- reductions on allocations for a given resource, and
- limits on the issuing of new entitlements.

Monitoring of the effectiveness of the water management policies is undertaken on an ongoing basis. No new capping policies were introduced in 2019/20 and none are currently proposed as existing measures have continued to be effective. There is no evidence of growth in diversions in any of the Victorian valleys.

Victoria currently administers the Cap through establishment and implementation of bulk entitlements, Streamflow Management Plans and licensing of irrigation farm dams.

During 2019/20 the Victorian Government has continued to undertake several activities to ensure the progress of water reform in the Murray-Darling Basin, including:

- Continuing to work collaboratively with the MDBA and other Basin states to progress implementation of the Constraints Management Strategy through our ongoing involvement in the River Murray Constraints Steering Committee.
- Continued work on the progression of supply measure projects, a number of which are Victorian works-based supply measures, developed in partnership with the Mallee and North Central Catchment Management Authorities, and some are Victorian-led operating rule change proposals.
- Significant progress towards Victoria's water recovery targets through water savings projects and SDL offsets.
- Completion of independent review of a foundational version of the Source model representing baseline conditions for Northern Victoria, and significant work undertaken to address the review recommendations and improve the model, with aim to replace the REALM version of the BDL model once deemed fit-for-purpose.
- Development and submission of the Annual Environmental Watering Priorities to the MDBA consistent with the Basin Plan, while working collaboratively through the Southern Connected Basin Environmental Watering Committee and other forums to successfully deliver our Seasonal Water Plan.
- In line with the Basin Salinity Management 2030 (BSM2030) strategy reporting and auditing processes, Victoria submitted a comprehensive report on salinity management activities undertaken across northern Victoria in 2018/19. This report was subject to the Independent Audit Group for Salinity in November 2019, who found that Victoria continues to meet their obligations

under Schedule B of the Murray-Darling Basin Agreement. Victoria is now preparing for the submission of the BSM2030 Status Report for 2019-20 to the MDBA.

5.2 Water Resource Plan Development

Victoria's progress with Water Resource Plans (WRPs) in 2019/20 was focused on formally resubmitting the Victoria's North and Murray WRP and commencing implementation of our two WRPs.

5.2.1 Wimmera-Mallee Water Resource Plan

The Wimmera-Mallee WRP was developed to provide a response to Basin Plan requirements for the Wimmera-Mallee (surface water) WRP area and the Wimmera-Mallee (groundwater) WRP area. The Plan was accredited by the Commonwealth Minister on 19 September 2019.

5.2.2 Victoria's North and Murray Water Resource Plan

Victoria's North and Murray WRP was resubmitted to the MDBA on 26 November 2019 for formal assessment. This plan covers the Victorian Murray WRP area, Northern Victoria WRP area and the Goulburn-Murray WRP area.

The Plan was resubmitted following extensive consultation with the MDBA regarding accredited text and the supplementary material required to support a recommendation for accreditation.

Victoria's North and Murray WRP was accredited by the Commonwealth Minister by WRP plan area on the following dates:

- Northern Victoria WRP area (accredited 28 May 2020)
- Victorian Murray WRP area (accredited 10 June 2020)
- Goulburn-Murray WRP area (accredited 10 June 2020)

5.2.3 Aboriginal Water

Traditional Owner engagement was a major focus during the development of Victoria's WRPs over the last three years. Across Victoria's WRP areas, 14 Traditional Owner groups were invited to collaborate to ensure that Victoria's plans reflect their aspirations for water. DELWP worked with each Traditional Owner group to create an engagement approach tailored to meet the needs of each group.

Post accreditation of the WRPs, the protection of Aboriginal water values and uses will continue to be strengthened through the Victorian Aboriginal water policy in Water for Victoria. It directs an ongoing partnership approach between Traditional Owners and Victorian Government water managers to:

- support Aboriginal participation in Victorian water planning and management frameworks through collaborative structures that address the rights and interests of Traditional Owners;
- increase capacity for shared benefits to realise Aboriginal water outcomes through working with Water Corporations, Catchment Management Authorities and VEWH; and
- build capacity to increase Aboriginal participation in water management.

Victoria continues to engage with Traditional Owners on a range of water management and environmental management projects.