

**NEW SOUTH WALES –QUEENSLAND
BORDER RIVERS INTERGOVERNMENTAL AGREEMENT 2008**

AGREEMENT

BETWEEN

THE STATE OF NEW SOUTH WALES

-AND-

THE STATE OF QUEENSLAND

PREAMBLE

1. In Queensland and New South Wales, the rights to the use, flow and control of all water is vested in the State and the Crown respectively. The **Border Rivers Catchment** is located in the States of Queensland and New South Wales, with a significant proportion of the State boundary located along major rivers in the **Border Rivers Catchment**, i.e. the Dumaresq, Macintyre and Barwon Rivers. The **Border Rivers Catchment** includes the **Border Rivers**.
2. Queensland and New South Wales both recognise their responsibility to ensure that water in the **Border Rivers Catchment** is allocated and used in a way to maintain a balance between social and economic outcomes and environmental values and sustainability.
3. Queensland and New South Wales jointly manage water infrastructure and monitoring stations in the **Border Rivers Catchment** and wish to ensure the ongoing effective management of these works for the joint benefit of both States.
4. The New South Wales - Queensland Border Rivers Agreement (the New South Wales - Queensland Border Rivers Agreement), as ratified by the *New South Wales-Queensland Border Rivers Act (QLD 1946, NSW 1947)* (the Act), contains water sharing arrangements for the **Border Rivers**, and provisions for the construction and operation of certain storages. Under the terms of the Act and the New South Wales - Queensland Border Rivers Agreement, the Dumaresq-Barwon Border Rivers Commission (the Border Rivers Commission) directs the distribution of water which is made available to Queensland and New South Wales.
5. However, over time, a number of initiatives have arisen that will continue to have a significant influence on water management in the **Border Rivers Catchment**. These include the COAG water reforms, National Water Initiative and the Murray-Darling Basin Agreement.
6. Each State is implementing water reforms in response to these initiatives and has embarked on processes to –
 - separate water entitlement from land title;
 - clearly specify water entitlements in terms of ownership, volume, and transferability;
 - recognise the environment as a bona fide user of water and make explicit provision for environmental water whilst supporting a sustainable level of economic development; and
 - establish a framework for water trading both between and within the States.

7. The implementation of these water reforms, and the ongoing sustainable management and sharing of water in the **Border Rivers Catchment**, requires this new agreement, the New South Wales - Queensland Border Rivers Intergovernmental Agreement 2008 (this Agreement) to be reached between Queensland and New South Wales on a range of water management issues in the **Border Rivers Catchment** including –
- environmental flow management on those streams that are shared between the States;
 - formalising water sharing between the States and between users and the environment;
 - formalising water access arrangements;
 - provision of adequate flows to the Darling Basin downstream of Mungindi; and
 - interstate trading of water entitlements.

The States acknowledge that nothing in this Agreement is intended to affect the role, functions and powers of the Border Rivers Commission as provided for under the Act and the New South Wales - Queensland Border Rivers Agreement.

8. The development of this Agreement has been based on the principles agreed between the two States, set out in the Statement of Principles at Schedule A, to ensure that the **Border Rivers Catchment** will be managed sustainably for its environmental, economic, social and cultural values.
9. This Agreement recognises the sovereignty of each State to manage water resources within its own territory and provides the basis for –
- each State to apply its own statutory planning processes and management of access to achieve agreed ecological outcomes for the **Border Rivers Catchment**;
 - providing stability and surety to each State's right to use water, enabling each State to better define its individual users rights to the **take** of water from the **Border Rivers Catchment**;
 - robust accounting to distribute available water and monitor the **take** by the States of their share of the available water from the **Border Rivers Catchment**;
 - the trading of water and entitlements to the **take** of water from the **Border Rivers Catchment** between the water users of each State; and
 - a common and co-operative system of measuring, monitoring and reporting on flows, the **take** of water and environmental outcomes in the **Border Rivers Catchment**.
10. The States will continue to have responsibilities for the development and implementation of policies and plans within their own jurisdictions and for administration of their respective legislation.
11. The States will continue to have responsibility for the management of access to and the control of works that impact on **floodplain flows**.

12. The States acknowledge that this Agreement will further evolve over time with the ultimate intention being to include all aspects of access, sharing and management of water and related infrastructure in the **Border Rivers Catchment**.

IMPLEMENTATION

13. This Agreement will be implemented through the States' respective water planning processes, except as provided for in this Agreement.
14. The States will agree to new or amended operating procedures for jointly managed infrastructure, or wholly State owned infrastructure, that impacts on the implementation of this Agreement, before introducing such procedures.
15. The States agree to use their best endeavours to amend and/or repeal legislation as necessary, to enable the implementation of this Agreement.

COMMENCEMENT

16. The provisions of this Agreement will be implemented following signing by the Premiers of each jurisdiction, provided that where the implementation of any aspect of this Agreement requires, or is dependant upon, any amendment to the legislation of a party to this Agreement, the implementation of that aspect will be subject to the relevant legislative amendment first being made by the Parliament of the jurisdiction concerned.

INTERPRETATION

17. In this Agreement:
 - i. words and phrases in bold font are defined in the Glossary of Terms in Schedule B;
 - ii. schedules to this Agreement form part of this Agreement;
 - iii. appendices to this Agreement form part of this Agreement.
18. This Agreement relates geographically to the **Border Rivers Catchment**. A map of the **Border Rivers Catchment** is shown in Schedule C.
19. This Agreement applies principally to surface water in the **Border Rivers Catchment** within the jurisdiction of the respective States, but also provides for broad agreement on the shared groundwater resources of the **Dumaresq River Groundwater Area**. It is the intention of both States that this Agreement will ultimately be amended to more comprehensively include groundwater resources common to the two States, excluding the Great Artesian Basin. Until that time, the Border Rivers Commission will continue to be responsible for the monitoring of groundwater levels in the shared **Dumaresq River Groundwater Area**.

ROLES AND RESPONSIBILITIES

20. Each State will be responsible for implementing this Agreement within its respective jurisdiction and for facilitating the resolution of inter-jurisdictional issues as they arise.
- 20A. For clarification, nothing in this Agreement is intended to affect the role, functions and powers of the Border Rivers Commission as provided for under the Act and the New South Wales -Queensland Border Rivers Agreement.

KEY ELEMENTS

21. This Agreement addresses the following key elements –
- i. Sustainable Management of Water (sections 22 to 24);
 - ii. Water Sharing and Access Arrangements (sections 25 to 35);
 - iii. Interstate Trading (sections 36 to 38);
 - iv. Water Resource Accounting (sections 39 to 40);
 - v. Measurement and Monitoring (section 41);
 - vi. Amendment and Review (sections 42 to 48);
 - vii. Auditing and Reporting (sections 49 to 51);

and the Schedules and Appendices to this Agreement address the following further aspects of the key elements:

- A. Statement of Principles for an Intergovernmental Agreement;
- B. Glossary of Terms;
- C. Map of **Border Rivers Catchment**;
- D. Water Sharing and Access Arrangements;
- E. Interstate Trading;
- F. Water Resource Accounting;
- G. Measurement and Monitoring; and
- H. Auditing and Reporting.

SUSTAINABLE MANAGEMENT OF WATER

22. The States agree that all water in the **Border Rivers Catchment** will be managed to –
- i) balance water resource use with the protection of the riverine environment in the **Border Rivers Catchment** and the provision of water to the Darling Basin downstream of Mungindi;
 - ii) make water available to be stored and used while retaining water for the riverine environment;
 - iii) implement a limit on the **take** of water by each State;
 - iv) maintain flows in the **Border Rivers** to support a healthy riverine environment;
 - v) maintain water quality at levels acceptable for water use and to support natural ecological processes to the extent that water management arrangements can impact on water quality outcomes; and
 - vi) maintain habitats of cultural and spiritual significance.

End of System Flow

23. The States agree that each State will initialise their respective water plans to achieve an **end of system flow** of at least 60.8% of the **pre-development flow pattern** as determined using **scenario BOR0609U** of the **IQQM computer program**. This flow objective will be met on initialisation of the plans only and has been achieved by varying access arrangements for **unregulated flows** in the **Border Rivers**.

Low to Moderate Flows in the Border Rivers

24. The States agree that to achieve the objectives listed in section 22, they will seek to maintain or improve low to moderate flows in the **Border Rivers** by the:
- i) preservation of part of the tributary inflows to the **Border Rivers** through to Mungindi, during periods of **regulated flow** from 1 September to 31 March;
 - ii) protection of natural **low flows** in the upper reaches of the Dumaresq River; and

Note: This same protection will also apply in the Severn/Macintyre Rivers from Pindari Dam downstream to the Dumaresq River junction.
 - iii) protection of **moderate flows** in the Macintyre and Barwon Rivers from Goondiwindi to Mungindi.

Note: The management of **floodplain flows** is the province of each State. It is not the intention of this Agreement to prescribe floodplain management, only the agreed limit of **floodplain harvesting**.

WATER SHARING AND ACCESS ARRANGEMENTS

25. The States agree to allocate and manage water to limit the **long term average annual take** of water from the **Border Rivers Catchment** and to develop further water sharing and access arrangements to –
- i) provide a basis for sharing the waters of the **Border Rivers Catchment** between Queensland and New South Wales;
 - ii) specifically provide a basis for the sharing of inflow to, and the waters of, Glenlyon Dam, that part of Pike Creek between Glenlyon Dam and its junction with the Dumaresq River in Queensland, and the **Border Rivers**;
 - iii) support specific environmental flow strategies (as outlined in sections 23 and 24);
 - iv) provide co-ordinated access arrangements for water in the **Border Rivers**;
 - v) preserve the characteristics of the water access (or licence) products of each State in the **Border Rivers Catchment**;
 - vi) continue to provide access to **unregulated flows** for **small irrigation enterprises** in the upper parts of the **Border Rivers Catchment**; and
 - vii) take into account each States' commitment to the Murray Darling-Basin Agreement.

This clause is not intended to affect the role, functions and powers of the Border Rivers Commission as provided for under the Act and the New South Wales - Queensland Border Rivers Agreement.

Limits on the **Take** of Surface Water

26. The States agree to implement allocation and management arrangements to limit the **long term average annual take** of surface water in the **Border Rivers Catchment**.

In *Queensland* this will be limited to the total of –

- i) the **long term average annual take** of water from the **Border Rivers**, all streams or sections of stream in Queensland and from **overland flow water** including the floodplains of the Dumaresq, Macintyre, Barwon and Weir Rivers, under the September 2000 **level of development** with water sharing, access and environmental flow rules for the **Border Rivers** as outlined in this Agreement, plus
- ii) the additional water allocated in the former Stanthorpe Shire as provided for in Schedule 4 to the Water Resource (Border Rivers) Plan 2003.

In *New South Wales* this will be limited to the total of -

- i) the **long term average annual take** of water from the **Border Rivers** upstream of Mungindi, the Severn River from the upstream limit of the storage of Pindari Dam to the Macintyre River junction and the Macintyre River from the Severn River junction to the Dumaresq River junction, under the June 2002 **level of development** with water sharing and access arrangements for the **Border Rivers** as outlined in this Agreement, plus

- ii) the average active use (over the volumetric conversion period from 1993/94 to 1998/99) **taken** through surface water access licences from all other **unregulated streams** or sections of streams in New South Wales, plus
 - iii) the **long term average annual take** of water from the floodplains of the Dumaresq, Macintyre and Barwon Rivers, under the November 1999 **level of development**.
27. The States agree that water **taken** for the following purposes will not be included in the limits agreed under section 26 of this Agreement:

Queensland

- i) Water **taken** under section 20(2) or section 20(5) of the Water Act 2000 (Qld).
- ii) Water **taken** –
 - a. for riparian stock and domestic purposes, or
 - b. necessary to satisfy the requirements of an environmental authority issued under the Queensland *Environmental Protection Act 1994*, or
 - c. that is essential to contain **contaminated agricultural runoff water**.¹

New South Wales

- i) Water **taken** for purposes similar to those described under section 27 i) above.
 - ii) Water **taken** –
 - a. for domestic consumption or stock watering pursuant to a basic landholder right under section 52 of the *Water Management Act 2000* (NSW), or
 - b. as part of a harvestable right under sections 53 to 54 of the *Water Management Act 2000* (NSW), or
 - c. for Aboriginal heritage purposes or native title rights under section 55 of the *Water Management Act 2000* (NSW), or
 - d. that is essential to contain **contaminated agricultural runoff water**.¹
28. Notwithstanding the limits on the **take** of water agreed in section 26, each State may manage a **take** of water which is less than its limit, in accordance with individual State policies.

¹ It is the intention of each State to put a management regime in place that limits the development of works to contain **contaminated agricultural runoff water** to that deemed necessary in accordance with industry-accredited best management practice and/or detailed land and water management plans.

Limits on the **take** of Groundwater

29. Each State will limit extractions of groundwater from the alluvial sediments associated with the Dumaresq River upstream of Keetah Bridge to an agreed level.

Growth Management

30. The States agree to manage growth in water use through the following strategies.

Queensland

- i) For the **take** of water from the storage of Glenlyon Dam, Pike Creek from Glenlyon Dam to the junction with Dumaresq River and the **Border Rivers** downstream of the Pike Creek junction, Queensland will use hydrologic modelling to convert existing **authorisations** to volumetric water entitlements and to develop water sharing rules to contain the **long term average annual take** within the agreed limits.
- ii) For the **take** of water from all other watercourses in the **Border Rivers Catchment**,
 - a. **authorisations** which are able to be adequately represented by a hydrologic model will be converted to volumetric water entitlements and water sharing rules will be developed to contain the **long term average annual take** within the agreed limits, and
 - b. all other **authorisations** will be metered and monitored and will be converted to volumetric water entitlements when adequate information has been obtained to support the conversion.

Note: Authorisations for the purpose of water harvesting will generally be converted to volumetric water entitlements whilst those that authorise an area to be irrigated will be metered and monitored.

- iii) For the **take** of water from **overland flow water**,
 - a. works for the **take** of **overland flow water** are assessable development under the *Integrated Planning Act, 1997*,
 - b. applications for development permits for new works or reconfigurations of existing works under the *Integrated Planning Act, 1997* will be assessed to ensure no growth in the **take** of water from agreed levels, and
 - c. during the term of the Water Resource (Border Rivers) Plan 2003, Queensland undertakes to better define the **take** of water on the floodplains and move to managing that **take** through volumetric water licences and measurement of the **take**.
- iv) Any decisions made in dealing with an **authorisation** for the **take** of water will be tested to ensure there is no growth in the **take** of water under the entitlement as a result of that dealing.

Management of growth in the **take** of water from watercourses will be by using an investigative approach with actions ranging from individual compliance through to a review of water sharing rules for the particular category of water.

New South Wales

- v) New South Wales will use hydrologic modelling to define the limit for the **long term average take**.
- vi) The 1993/94 **level of development** plus an allowance for the effects of additional water made available by the Pindari enlargement will define the NSW cap. This is deemed to be equivalent to the November 1999 **level of development**.
- vii) The June 2002 **level of development** with water sharing and access arrangements outlined in this Agreement will be adopted and described in the Water Sharing Plan for the New South Wales Border Rivers Regulated River Water Source as the Plan limit.
- viii) Growth in the **take** of water from watercourses will be managed using an investigative approach with actions ranging from individual compliance through to the making of Available Water Determinations in relation to Supplementary Water Access Licences.
- ix) Access conditions will be adopted so that total **floodplain harvesting** extraction will not be allowed to exceed the **long term average annual take** based on the November 1999 **level of development**.

Water Sharing

31. After water has been apportioned by the Border Rivers Commission, the States agree to the following water sharing arrangements in regard to water **taken** into storage or available for **take** within the **Border Rivers Catchment**.
- i) Within the limits on the **take** of water set out in sections 26 to 29 of this Agreement, each State has the right to:
 - a. management of **overland flow water** and floodplain flow in their respective States, and
 - b. management of flows in the tributary streams of the **Border Rivers** in their respective States.
 - ii) Subsection i) does not apply to the storage of Glenlyon Dam or that part of Pike Creek from Glenlyon Dam storage to the Dumaresq River junction.

Border Valley Storages

- iii) Inflows to Glenlyon Dam and water in Glenlyon Dam that becomes available for sharing as a result of regular water resource assessments, shall be shared between New South Wales and Queensland in the ratio 57:43 respectively. If either State's share of Glenlyon Dam is full, before the Dam is physically full, the share of the inflow or increase in water available for use belonging to the State whose share is full will spill into the space belonging to the other State and will become part of that other State's share.
- iv) The storage of Glenlyon Dam will be shared between New South Wales and Queensland in the ratio 57:43 respectively. At no time shall New South Wales or Queensland be

entitled to a share of the water in Glenlyon Dam greater than 57% or 43% respectively of the active storage volume of the Dam, except under the provisions of Schedule E and its appendices.

- v) Overflows from Pindari and Coolmunda Dams are tributary flows in the respective States and each State will have the right to the management of these flows until they discharge into the **Border Rivers**.
- vi) Water that becomes available for sharing as a result of impoundment of water by weirs on the **Border Rivers** and subsequently used to satisfy water orders, essential requirements and delivery losses, will be shared between New South Wales and Queensland in the ratio 57:43 respectively.

Tributary Inflows to the Border Rivers

- vii) During periods of **regulated flow** and subject to section 32, water that becomes available for sharing as a result of unregulated inflows to the **Border Rivers** and that part of Pike Creek between Glenlyon Dam and its junction with the Dumaresq River in Queensland, used to satisfy water orders, essential supplies and delivery losses, will be shared between New South Wales and Queensland in the ratio 57:43 respectively.
- viii) During periods of access to **unregulated flow** under section 33, **water available for distribution** from natural inflows to the **Border Rivers** will be shared equally between the States. Where the inflows only occur in the lower reaches of the **Border Rivers**, the **water available for distribution** will be shared between the States in proportion to the percentage of each State's **off allocation entitlement** able to access the flow. If either State is unable to use, or does not wish to use, its share of the available flow, it may choose to make the flow available to the other State or let it pass downstream.
- ix) During periods of access to **unregulated flow** under section 34, each State may provide access as requested within the limits of the **water available for distribution**. If demand exceeds the **water available for distribution**, sharing will return to **regulated flow** arrangements under Section 31 (vii).

Operation of Newinga Regulator and Boomi Diversion Structures

- x) Newinga regulator and Boomi diversion structures will be operated, as much as is practical to do so, to not impact on the water available to be shared or the intent of section 24 with respect to low to moderate flows. These structures will be operated in accordance with the provisions described in sections I and 2 of Schedule D.

Interaction with New South Wales-Queensland Border Rivers Agreement

- xi) To the extent that clause 31 of this agreement applies to share water which is the subject of clauses 33(1)(b) and 37 of the New South Wales-Queensland Border Rivers Agreement, it is agreed that the part of Queensland's 50% share of regulated water which would otherwise be available to it under clause 33(1)(b) of the New South Wales-Queensland Border Rivers Agreement, is made available to New South Wales under clause 33(2)(a) of that Agreement.

Access Arrangements

32. During the period from 1 September of each year to 31 March of each following year, the States must not **take** water from that portion of natural inflows to the **Border Rivers** that, after taking into account losses and when combined with any other natural inflows flowing simultaneously in the **Border Rivers**, would result in a flow over the weir in the Barwon River at Mungindi of up to 100 ML/day.
33. The States agree to the access arrangements for **unregulated flows** in the **Border Rivers** as described in section 3 of Schedule D, subject to an environmental share of a minimum of 25% of the **available volume** during periods of access to **unregulated flow** being protected from **take** from the point of inflow downstream to Mungindi.

Note: These arrangements will also apply to any access to the **take** of water into storage in the Macintyre River and Severn River downstream of Pindari Dam in New South Wales otherwise section 34 applies.

34. The States agree to the access arrangements for **small irrigation enterprises to unregulated flows** in the Dumaresq River from Pike Creek junction to the Macintyre River junction and in the Macintyre River from the Dumaresq River junction to Goondiwindi Weir, as described in section 4 of Schedule D.

Note: Similar arrangements will also apply to access to the **take** of water in the Severn and Macintyre Rivers from Pindari Dam downstream to the Dumaresq River junction that is not **taken** into storage.

Exceptional Circumstances Protocol

35. The States agree to jointly develop arrangements for access to flows in the **Border Rivers Catchment** to address exceptional circumstances in downstream catchments. In the interim, and on the understanding that the water sharing and access arrangements outlined in this Agreement will provide improved contributions to downstream flows, each State will continue to consider the provisions of the North West Unregulated Flow Management Plan, i.e., if New South Wales alters off allocation access by its licensees in order to address downstream exceptional circumstances, any contribution by Queensland will be at its discretion. Any agreed arrangements, for the joint contribution to downstream exceptional circumstances, will be included as an amendment to this Agreement.

INTERSTATE TRADING

36. Each State acknowledges the commitments made under the National Water Initiative (NWI) and its water market and trading arrangements will (under clause 58 of the NWI) –
- i) facilitate the operation of efficient water markets and the opportunities for trading, within and between States, where water systems are physically shared or hydrologic connections and water supply considerations will permit water trading;
 - ii) minimise transaction costs on water trades, including through good information flows in the market and compatible entitlement, registry, regulatory and other arrangements across jurisdictions;
 - iii) enable the appropriate mix of water products to develop based on access entitlements which can be traded either in whole or in part, and either temporarily or permanently, or through lease arrangements or other trading options that may evolve over time;
 - iv) recognise and protect the needs of the environment; and
 - v) provide appropriate protection of third party interests.
37. The States agree to develop arrangements that will –
- i) recognise and maintain the individual characteristics of existing State water entitlements; and
 - ii) recognise the specific legislative requirements of each State.
38. The States agree to the arrangements outlined in Schedule E of this Agreement.

WATER RESOURCE ACCOUNTING

39. The States agree to develop and maintain accounting systems in respect of the allocation and management of water resources in the **Border Rivers Catchment** to –
- i) ensure stakeholder confidence in the equitable sharing of the available resource;
 - ii) provide a basis for managing within the limits on the **take** of water described in this Agreement;
 - iii) specifically account for the sharing of inflows to Glenlyon Dam and the sharing of **regulated flows** in the **Border Rivers**;
 - iv) specifically account for the sharing of **unregulated flows** in the **Border Rivers**;
 - v) support reporting and auditing obligations;
 - vi) support water trading; and
 - vii) provide a basis for implementing systems for cost recovery.
40. The States agree to the arrangements outlined in Schedule F of this Agreement.

MEASUREMENT AND MONITORING

41. The States agree to undertake measuring, monitoring, and recording in accordance with the arrangements outlined in Schedule G of this Agreement.

AMENDMENT & REVIEW

42. This Agreement may be amended at the request of one of the States, subject to the agreement of both of the States.
43. The States agree to notify and consult with each other on matters that come to their attention that may improve the operation of this Agreement.
44. This Agreement will be reviewed in parallel with the review of the Water Resource (Border Rivers) Plan 2003 in Queensland and the Water Sharing Plan for the New South Wales Border Rivers Regulated River Water Source in New South Wales (the States will make every endeavour to make the terms of the respective plans concurrent).
45. Except for the types of amendments described in section 46 of this Agreement, any amendment to this Agreement will require the approval of the Premiers of each State.
46. Any amendment to Schedule B through to Schedule H (except appendices to those Schedules) to give effect to the implementation of this Agreement, and which does not fundamentally impact upon the principles of this Agreement as set out in Schedule A, will require the approval of the respective State Ministers responsible for Water and the Environment in each State.
47. The States agree to establish a Standing Committee with representatives from each State agency with responsibility for Water and the Environment. The role of the Standing Committee will be to –
 - i) provide advice to respective State Ministers responsible for Water and the Environment when required;
 - ii) establish and vary any appendices to Schedule B through to Schedule H, to define additional provisions required to implement this Agreement.

Interaction with the Border Rivers Commission

48. For greater clarity, the Standing Committee established under clause 47 of this Agreement, in no way affects the powers and duties of the Border Rivers Commission as outlined in the New South Wales - Queensland Border Rivers Agreement and the Act.

AUDITING AND REPORTING

49. The States will share information on **authorisations** for the **take** or conservation of water and any related infrastructure as required to develop or update hydrologic models for the **Border Rivers Catchment**.
50. The **take** of water will be audited annually comparing measured **take** with modelled **take** for that climatic year. If the actual **take** exceeds the modelled **take**, investigations will be initiated to determine the cause and appropriate remedial action will be undertaken.
51. The States agree to the arrangements outlined in Schedule H of this Agreement.

STATEMENT OF PRINCIPLES
FOR AN INTERGOVERNMENTAL AGREEMENT BETWEEN
NEW SOUTH WALES AND QUEENSLAND
FOR WATER MANAGEMENT IN THE BORDER RIVERS

The Border Catchments Ministerial Forum agrees that an Intergovernmental Agreement based on the following principles is required to ensure that the **Border Rivers Catchment** will be managed sustainably for its environmental, social, cultural and economic values.

1. Whole-of-Catchment Approach	The States will manage all aspects of water and related natural resource activities on a water catchment basis so as to balance water resource use and protection of ecosystems.
2. State Cooperation	The States will recognise the Border Rivers as a special case and customise their individual policies to meet its unique requirements.
	The States' agencies will ensure that policies and legislation pertaining to the Border Rivers are not in conflict.
	The management of the Border Rivers will take into account each State's commitment to the Murray-Darling Basin Agreement
3. Community Support	Proposals to put to the wider community will be developed by government in partnership with stakeholders.
	The States will engage the community to seek community understanding, support and ownership of the agreement.
4. Environmental Protection	Agreed-upon environmental outcomes will enhance and sustain identified environmental values. These outcomes will be protected against impact from increases in water use.
	The States will develop coordinated joint access management rules for the common streams and will ensure rules on other streams will support the agreement outcomes.
5. Water Sharing and Access	Water sharing arrangements between the States will recognise the current water sharing arrangements. Access to water entitlements will be in accordance with the States' planning and legislative frameworks.
	Management of access by water users in one State will not impact on the allowed access by water users in the other State
6. Accounting	The States will implement transparent and freely available accounting procedures, consistent with trading rules.
	All current and future water entitlements within the entire Border Rivers Catchment will be accounted for on a volumetric basis to meet the agreed environmental and water use targets.

7. Interstate Trading	The States will establish systems for interstate trading of water to allow water to move to its highest value use, while ensuring minimal impact on other users and on the environment.
8. Monitoring	The States will establish an integrated cost-effective monitoring and measurement program to support the ongoing assessment of the effectiveness of the agreement.
9. Management Review	An adaptive and transparent approach will be used for extraction and environmental flow management, and this will include regular formal reviews.
	Management responses will be tailored to the issues identified by the monitoring program.
10. Auditing and Reporting	Data, analysis and policy information will be openly exchanged between the States and the community.
	All usage and compliance with management rules will be subject to regular reporting and auditing.

GLOSSARY OF TERMS

“**authorisations**” in Queensland includes water licences, orders in council, and water agreements authorising the **take** of water from a watercourse.

“**available volume**” means the volume of flow available in an event or part of an event after subtracting water orders in the system, losses to meet those orders and losses in the event through to Mungindi. Losses include ‘in stream’ losses and outflows to effluents and overbank flows.

“**Border Rivers**” means the parts of the Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland.

“**Border Rivers Catchment**” means the entire catchments of the streams that form the **Border Rivers** between Queensland and New South Wales, including the Barwon River downstream to where the Queensland / New South Wales border leaves the Barwon River, the Little Weir River downstream to the Queensland / New South Wales border and the Boomi River and tributaries down to the Gil Gil Creek junction.

“**contaminated agricultural runoff water**” means runoff water from agricultural land that contains, or is likely to contain, excess nutrients or farm chemicals at levels potentially harmful to the quality of water in a watercourse.

“**direct irrigation**” means direct delivery of water from the works taking the water onto a cropped area.

“**Dumaresq River Groundwater Area**” means the area overlying alluvium containing groundwater associated with the Dumaresq River upstream of Keetah Bridge.

“**end of system flow**” means the combined volume of water in the Barwon River at Mungindi and that which crosses the border from Queensland into New South Wales to the West of Mungindi in the model simulation period.

“**floodplain flows**” means water flowing across the floodplains of the **Border Rivers Catchment** and includes both breakout flow from streams and flow resulting from local runoff.

“**floodplain harvesting**” in New South Wales means the collection, extraction or impoundment of water flowing across floodplains that is covered by the NSW Floodplain Harvesting Policy, and in Queensland means taking **overland flow water** from floodplains.

“**IQQM computer program**” means the Integrated Quantity and Quality Modelling computer program, and associated modelling, statistical analysis and reporting programs, developed jointly by Queensland and New South Wales to simulate daily stream flows, flow management, storages, releases, instream infrastructure, water extractions, water demands and other hydrologic events in the Border Catchment.

“**level of development**” means the level of ‘on farm’ development, areas planted, infrastructure, and management rules related to the **take** of water at the specified date, plus in Queensland any development recognised under the moratorium notice of 20 September 2000 and the amending moratorium notices of 9 June 2001 and 16 August 2001. The term does not include works that were not legally entitled to divert water.

“long term average annual take” means the long term average annual volume of water able to be **taken** as assessed using hydrologic modelling.

“low flows” means flows up to 100 ML/day as described in Technical Advisory Panel (2000): *Report to the Community Reference Panel - Outcomes of the TAP Workshop Held 13 September 2000 in Brisbane on Joint NSW and Qld issues to develop Flow management strategies.*

“moderate flows” means flow pulses up to 3000 ML/day as described in Technical Advisory Panel (2000): *Report to the Community Reference Panel - Outcomes of the TAP Workshop Held 13 September 2000 in Brisbane on Joint NSW and Qld issues to develop Flow management strategies.*

“off allocation entitlement” in Queensland is an unsupplemented water allocation and in New South Wales is the number of unit shares an individual has attached to a supplementary water access licence.

“overland flow water” in Queensland refers to water, including floodwater, flowing over land, otherwise than in a watercourse or lake –

- a) after having fallen as rain or in any other way; or
- b) after rising to the surface naturally from underground.

“pre-development flow pattern” means the pattern of water flows, during the simulation period, decided by the chief executive using the **IQQM computer program** as if –

- c) there were no dams or other water infrastructure on watercourses in the plan area; and
- d) no water was **taken** under any form of entitlement from watercourses or floodplains in the area.

“regulated flow” in the **Border Rivers** is the flow that: –

- a) comprises, either wholly or partly, water released from a dam or weir, water reregulated by a weir or unregulated inflow from one or more of the tributary streams, and
- b) is used by the States to satisfy water orders, essential requirements and losses.

“scenario BOR0609U” means the scenario simulated using the **IQQM computer program** that is the basis agreed by Queensland and New South Wales for determining water sharing and access arrangements to meet the **end of system flow** objective.

“small irrigation enterprises” means an irrigation unit that is wholly supplied by a pump of less than 6 ML/day diversion capacity.

“take” in the context of this Agreement means the diversion, extraction, pumping or other consumptive use of water.

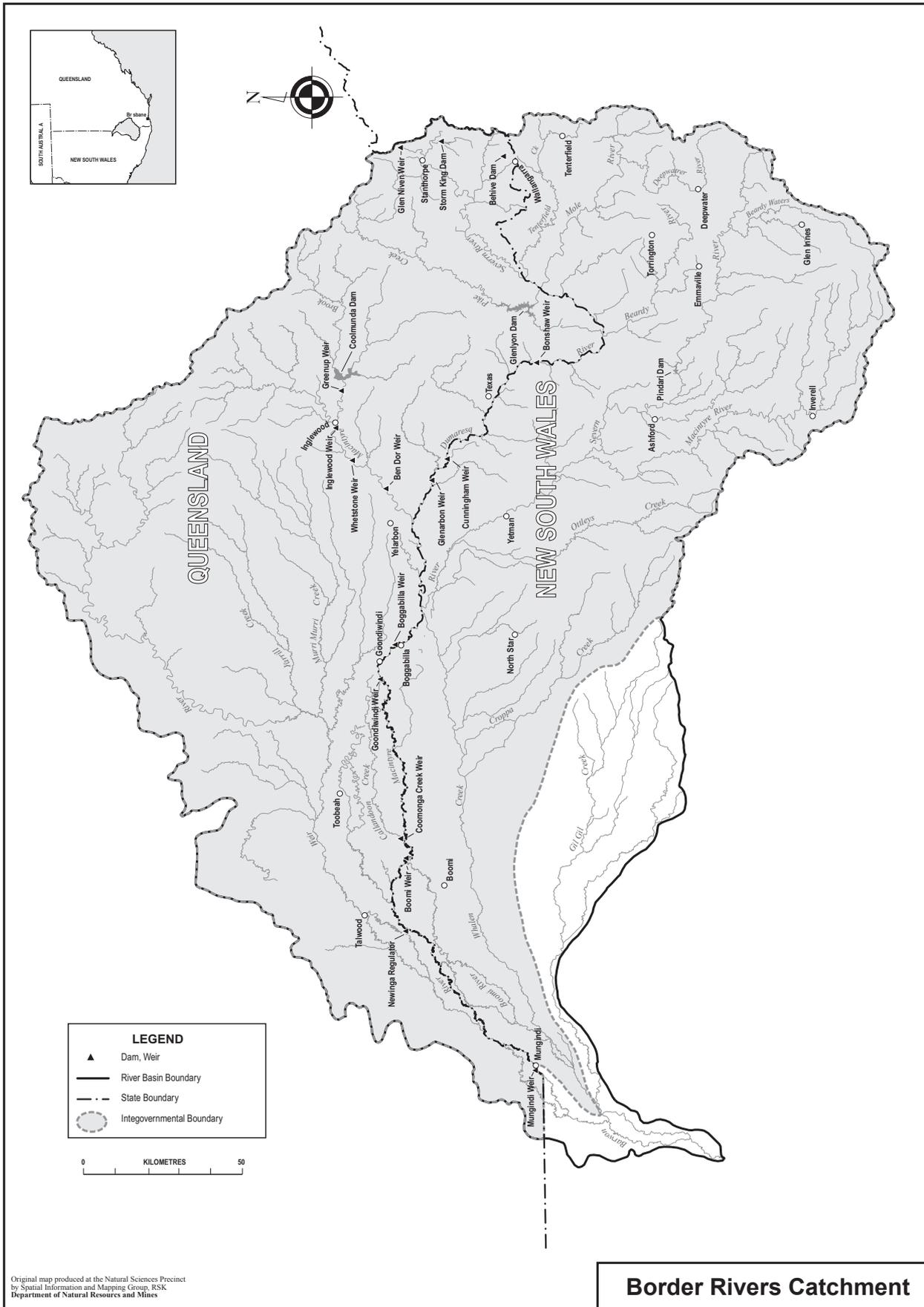
“taken” in the context of this Agreement means water diverted, extracted, pumped or used through other forms of consumption.

“unregulated flow” in the **Border Rivers** is the flow that: –

- a) results from unregulated inflows from one or more tributary streams including darn spills, and
- b) exceeds the requirements of the States to satisfy water orders for consumptive purposes and other essential requirements.

“unregulated stream” means a stream that is not in some way controlled by a State-owned dam and in New South Wales has not been declared to be a regulated river under the provisions of the Water Act 1912 or the Water Management Act 2000.

“water available for distribution” means the volume of water in an event or part of an event that is available for extraction in accordance with the access arrangements in this Agreement.



WATER SHARING & ACCESS ARRANGEMENTS

Operation of Newinga Regulator and Boomi Diversion Structures

- 1 Newinga regulator will be operated (as far as is practical to do so) to prevent the following flows or components of flow from breaking out of the Macintyre River through the Newinga breakout channel –
 - i) **regulated flow**;
 - ii) increases in flow through the channel as a result of the 25% environmental share in an **unregulated flow** that has been protected from extraction upstream of the breakout.
2. The Boomi diversion structure will be operated in accordance with the following:
 - i) Water may be diverted from **regulated flows** into the Boomi River for domestic and stock replenishment as part of New South Wales' share.
 - ii) All boards will remain in place so as to not divert water determined under section 32 of this Agreement.
 - iii) When flows in the Macintyre River are in excess of those determined under section 32 of this Agreement but less than those required for announced access under section 3 of this Schedule and are not required for **regulated flows**, water may be diverted at the Boomi Offtake up to 25% of the flow in the Macintyre River at Boomi Weir.
 - iv) Water may be diverted from **unregulated flows** during periods of announced access under section 3 of this Schedule, but the diversion structure will be operated (as far as is practical to do so) to prevent diversion of the 25% environmental share that has been protected from extraction upstream of Boomi Weir. As a general guide, additional diversions due to the operation of the structure will be no more than 25% of the flow in the Macintyre River at Boomi Weir. Diversions are part of New South Wales' share of **unregulated flows**.
 - v) Diversions made under section 2 (iv) of this Schedule do not include natural flows that would have occurred over and past the Boomi diversion structure with all boards in place.

Access arrangements for unregulated flows

3. Access to **unregulated flows** in the **Border Rivers** will commence and cease by announcement in accordance with the following provisions.

Flows originating upstream of Goondiwindi

- i) If **unregulated flows** originate upstream of Goondiwindi and there is no other contribution of **unregulated flow** in the system, access will commence based on a minimum 10,000 ML flow volume entering or predicted to enter the system over a two day period past Goondiwindi Gauging Station.

- ii) Access provided in accordance with section 3 (i) of this Schedule will cease when the flow volume past Goondiwindi Gauging Station falls below 3650 ML over a two day period.

Flows originating from the Weir River

- iii) If **unregulated flows** originate from the Weir River, access will commence based on a minimum 2,000 ML combined flow volume entering or predicted to enter the system over a two day period past Kanowna and Mascot Gauging Stations.
- iv) Access provided in accordance with section 3 (iii) of this Schedule will cease when the combined flow volume past Kanowna and Mascot Gauging Stations falls below 1,550 ML over a two day period.

Combined inflows

- v) Where **unregulated flows** originate from more than a single source and potentially provides concurrent access to entitlements in different sections of the **Border Rivers**, access will be considered based on –
 - a. a minimum 10,000 ML combined flow volume entering or predicted to enter the system over a two day period past Goondiwindi, Kanowna and Mascot Gauging Stations, and
 - b. a minimum 8,000 ML flow volume entering or predicted to enter the system over a two day period past Goondiwindi Gauging Station.
- vi) Sharing of water available for **take** will be consistent with section 31 (viii) of this Agreement for the full length of the reach able to be supplied except if there is insufficient **available volume** from the upstream source to supply the announced access volume plus the 25% environmental flow contribution for the upstream section.
- vii) In the case of insufficient **available volume** as described in section 3 (vi) of this Schedule, the upstream flow will be shared in proportion to each State's entitlement in the upstream section and must provide the minimum 25% environmental flow contribution.
- viii) If flows do not provide concurrent access to **off allocation entitlement** in different sections of the **Border Rivers**, access will commence based on criteria as in sections 3 (iii) or 3 (v) of this Schedule.
- ix) Access provided in accordance with section 3 (v) of this Schedule will cease –
 - a. from the upstream section when the flow volume past Goondiwindi Gauging Station falls below 1,825 ML over a 2 day period;
 - b. from the downstream section when the flow volume past Kanowna and Mascot Gauging Stations falls below 775 ML over a 2 day period.

General

- x) In the case when access is announced for a downstream reach of the system, flows that have not triggered access in the upstream reaches must not be included in the assessment of the downstream event volume.
- xi) Commence to pump and cease to pump flows described in this section do not include **take** that may occur from the event upstream of the nominated gauging station, i.e., **take** upstream of the gauging station, from that event, should be added back into the gauged flows for the purposes of determining whether the threshold has been met.
- xii) Commence to pump volumes described in this section are in excess of any **regulated flows**.
- xiii) The commence to pump and cease to pump thresholds outlined in this section are at nominated gauging stations for auditing purposes but it is intended to provide access to the window of flow between the commence to pump and cease to pump conditions as that point in the flow moves along the stream, i.e., access may be provided upstream of the gauging station to flows predicted to meet the threshold, and may continue downstream of the gauging station to flows that have met the threshold.
- xiv) Access announced under this section will cease if at any time it is necessary to return to **regulated flow** arrangements.
- xv) Access under this section may be for **direct irrigation** or for pumping into storage.

Note: (1) The commence to pump flow thresholds in this section are broadly based on what was accepted as a minimum threshold for announcement of access prior to development of this Agreement, i.e., minimum of ½ day of access for Qld and 1.5 % of regulated entitlement for NSW, i.e., approximately 8000 ML of **water available for distribution** plus 2000 ML for losses. The minimum 25 % environmental share will reduce the minimum volume of water available for **take**.

(2) The cease to pump threshold for flows originating upstream of Goondiwindi was developed to achieve the agreed **end of system** flow objective outlined in section 23 of this Agreement. The cease to pump threshold for flows originating from the Weir River alone was developed by attenuating the upstream cease to pump threshold. The cease to pump for combined inflows was developed based on 50% of the cease to pump threshold for inflows from that source alone. This achieves a similar minimum flow at the Weir River junction in all events.

- 4. Access by **small irrigation enterprises to unregulated flows** in the Dumaresq River from Pike Creek junction to the Macintyre River junction, and in the Macintyre River from the Dumaresq River junction to Goondiwindi Weir, will be in accordance with the following:
 - i) In the period from 1 April to 31 August, access may commence based on flow exceeding 150 ML/day and cease based on flow falling below 50 ML/day at Glenarbon Weir.
 - ii) In the period from 1 September to 31 March, access may commence based on flow exceeding 750 ML/day and cease based on flow falling below 250 ML/day at Glenarbon Weir.
 - iii) The commence to pump and cease to pump thresholds are at Glenarbon Weir for auditing purposes but it is intended to provide access to the window of flow between the commence to pump and cease to pump conditions as that point in the flow moves along the stream, i.e., access may be provided upstream of the gauging station to flows predicted to meet the threshold and may continue downstream of the gauging station to flows that have met the threshold.

- iv) Commence to pump thresholds described in this section are in excess of regulated and environmental flow requirements.
- v) Subject to subsection iv) (above), access under this section will also be provided for **small irrigation enterprises** in the section of the Macintyre River from the Dumaresq River junction to Goondiwindi Weir if access thresholds are satisfied –
 - a. in the Dumaresq River, or
 - b. under similar arrangements in the Macintyre River in New South Wales.
- vi) Access under this section is limited to –
 - a. **take for direct irrigation;**
 - b. a maximum diversion rate of 6 ML/day for each permitted work and for each individual irrigation system.
- vii) Access will cease to be provided if at any time the demand to **take** water under this rule threatens the continuity of flow that would otherwise naturally have occurred in the **Border Rivers**.
- viii) The States reserve the right to collaboratively review the access rules outlined in this section if experience demonstrates that the **take** of water impacts on the environmental flow objectives of this Agreement or the reliability of supply from **regulated flows**.

Note: Section 4 is intended to continue access provided prior to this Agreement but subject to an established set of criteria applied consistently in each State.

INTERSTATE TRADING

1. The States agree to the following arrangements.
 - i) Trading of existing water products will be allowed to occur in the **Border Rivers Catchment** where each State's water entitlement will remain registered in the State of origin and continue to be subject to the terms, conditions and management rules of that State.
 - ii) The establishment of works for taking and using water in either State will be subject to approvals of that State.
 - iii) The States will share relevant data to support interstate trading arrangements.

Allowable Interstate Trades

2. The following table describes the types of water entitlements or allocations able to be used interstate, either temporarily or permanently, as well as the stream sections within and across which interstate use of entitlement is permitted, and consequently accepted under this Agreement.

Type of entitlement or allocation (NSW/Qld) and type of transfer	Acceptable stream sections
Regulated allocation/ supplemented water allocation water (temporary transfer)	Border Rivers Regulated River (NSW) to Macintyre Brook Water Supply Scheme and Border Rivers (Qld) Water Supply Scheme and vice versa subject to account limit rules and operational accounting rules to be developed and agreed.
Regulated shares/ supplemented water allocations (permanent transfer)	Border Rivers Regulated River (NSW) to Macintyre Brook Water Supply Scheme and Border Rivers (Qld) Water Supply Scheme and vice versa subject to account limit rules and operational accounting rules to be developed and agreed.
Supplementary allocation/ unsupplemented water allocation water (temporary transfer)	Border Rivers Regulated River (NSW) to Border Rivers Water Management Area (Qld) and vice versa.
Supplementary shares/ unsupplemented water allocations (permanent transfer)	Border Rivers Regulated River (NSW) to Border Rivers Water Management Area (Qld) and vice versa.
Unregulated stream licences/ unsupplemented water allocations (either temporary or permanent)	<p>Such transfers may be allowed, subject to operational accounting rules being developed and agreed, ONLY in the section of the Dumaresq River that forms the State border from the Pike Creek junction upstream to the point where the border leaves the river to follow the water shed.</p> <p>The transfer of Queensland water licences in this section will not be allowed until they are converted to water allocations through a Resource Operations Plan.</p> <p>NO other transfers will be allowed between other unregulated streams of one State to the other State.</p>

3. An appendix to this Schedule shall be established by the Standing Committee to specify further provisions to ensure effective implementation of interstate trading including, but not limited to –
- i) a framework for contractual arrangements between regulatory and service delivery authorities;
 - ii) systems to enable appropriate reporting and accounting arrangements between States and regulatory and service delivery authorities;
 - iii) any spatial and temporal restrictions that may be required.

WATER RESOURCE ACCOUNTING

1. The States agree to the following accounting arrangements.

Border Rivers

- i) **Take** by the States during periods of **unregulated flow** will be accounted for separately to **take** by the States of **regulated flow**.
- ii) The following **take** will not be accounted for as part of the State's shares:
 - a. **Take** from **unregulated flows** for replenishment of stock and domestic water supplies due to the operation of the Boomi diversion structure outside of announced access periods outlined in Schedule D,
 - b. **Take** for riparian stock and domestic water supply.
- iii) Natural break-outs to effluent streams will not be accounted for as part of either States' share from either **regulated flows** or **unregulated flows** in the **Border Rivers**. This includes natural flows over and past the Boomi diversion structure with all boards in place, and natural flows over and past the Callandoon Creek diversion structure with all gates closed.
- iv) The following will be accounted for as part of the State's shares in the same manner as **take** for irrigation, industrial use or other commercial purposes –
 - a. **take** for stock and domestic water supply authorised by a licence or water allocation;
 - b. **take** for town water supply purposes.

Border Rivers Regulated Water

- v) The available regulated water supplies in the **Border Rivers** as outlined in section 31 of the agreement will be shared and the States' shares of the water stored in Glenlyon Dam will be accounted for on a continuous basis by carrying out regular water resource assessments as described in an appendix to this Schedule.
- vi) A water order will be debited as use by a State on the date that the water order was released from Glenlyon Dam, or the date it would have been released in the situation where downstream inflows are used to satisfy the water order
- vii) The total **take** by each State during periods of **regulated flow** will be the greater of the volume of metered **take** by each State and the total water orders by each State.
- viii) Contributions made to the **Border Rivers** by way of releases by New South Wales from Pindari Dam or by Queensland from Coolmunda Dam will be recognised in accounting for each State's **take** of water.

Border Rivers Unregulated Flows

- ix) The total **take** by each State during periods of **unregulated flow** will be calculated by taking the volume of the collective meter readings of all the **off allocation entitlement** in each State.
- x) Each State is responsible for managing access to its share of an **unregulated flow** event and no credit will be given in future events for any part of the share of a previous event not able to be taken, either by a State in total or by an individual.

Border Rivers Catchment

- xi) Water taken in a State other than the State of origin of the entitlement will be accounted for as if it was used in the State of origin.

MEASUREMENT AND MONITORING

1. The States agree to the following in relation to measurement, monitoring and recording as part of the implementation, ongoing management and audit of this Agreement.
 - i) The States agree to establish and document parameters to be monitored/measured by each State - in the form of an Integrated Environmental Monitoring Program for the **Border Rivers**. (Note that this document will include joint resource management tasks currently coordinated by the Border Rivers Commission).
 - ii) The States will adequately resource the functions of the collection and management of data required to comply with the Integrated Environmental Monitoring Program.
 - iii) Neither State will cease monitoring / measuring of the parameters outlined in the Integrated Environmental Monitoring Program without the agreement of the other State.
 - iv) Either State may negotiate additional parameters to be included in the Integrated Environmental Monitoring Program at any time.
2. The States agree to cooperatively assess the resources available for allocation of water from Glenlyon Dam, Pindari Dam and Boggabilla Weir, and to apportion water to each State in accordance with Schedule D.

AUDITING AND REPORTING

1. The States agree to report to each other on the following elements of this Agreement with appropriate audits to determine compliance with this Agreement –
 - i) **take of regulated flow** (including **take** directly from Glenlyon Dam) on a quarterly basis, reported annually;
 - ii) **take of unregulated flow** from the **Border Rivers** on an event basis, reporting separately on water taken for **direct irrigation of small irrigation enterprises** under section 34 of this Agreement;
 - iii) total **take** from the **Border Rivers Catchment** annually (subject to the installation of water metering devices for unregulated river licences);
 - iv) periods of announcement of access to **unregulated flows** annually;
 - v) preservation of tributary inflows annually;
 - vi) trades of water, both interstate and intrastate, annually;
 - vii) other matters/elements as agreed between the States from time to time.