

Irrigation Drainage Memorandum of Understanding

Covering the Goulburn-Murray Water
irrigation areas

Final (version 2.0)
October 2010

An agreement between:



NORTH CENTRAL
Catchment Management Authority
Connecting Rivers, Landscapes, People



**GOULBURN
BROKEN**
CATCHMENT
MANAGEMENT
AUTHORITY



Department of
Primary Industries



Department of
**Sustainability and
Environment**



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1 Preamble

The operating environment for managing irrigation and irrigation drainage in Victoria has changed over the last two decades. The dry conditions of the last decade have been the primary catalyst of community concern and continually improving industry action on irrigation water use efficiency. This action has resulted in improved drainage management and water quality.

Water is increasingly recognised to be an indispensable and scarce resource; for industry, communities and the environment. Nationally, there is a concerted effort to return water to the environment that has resulted in reduced water availability for consumptive use.

Climate projections for northern Victoria, in association with further environmental water recovery in the future (including application of Sustainable Diversion Limits), indicate that although conditions may improve slightly over the coming decades, we are unlikely to see a return to “pre-drought” climate and water availability.

This decreased water availability, combined with changes in water trading, government legislation and regional irrigation footprint, has seen the risks of runoff and water table recharge across the Goulburn-Murray Water (G-MW) irrigation areas change dramatically. Undoubtedly, risks to waterways will change again in the future, in response to changing climate, government policy and irrigation practices. This uncertainty about the future means that agency action on irrigation drainage must be managed in a flexible way to ensure that efforts are always proportional to the risk of harm to waterways.



This Irrigation Drainage Memorandum of Understanding (IDMOU) focuses primarily upon management of surface irrigation drainage across the G-MW irrigation areas. The Agreement is made in the knowledge that first-rate farm water-use practices are crucial in achieving sustainable and integrated management of Surface Water Management Systems (SWMSs). From the farm to drains, management of surface water irrigation works and measures are fostering and improving the environmental, economic and social aspects of northern Victoria’s irrigated catchments.


2 Authorisation

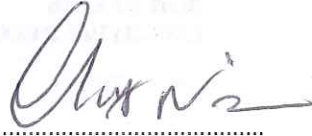

This Agreement is dated the 29 day of October 2010.

On behalf of the organisation I represent, I have the authorisation to sign this Agreement and contribute to its implementation and further development.


Signed by:

SIGNED by the SECRETARY to the DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT for and on behalf of the STATE OF VICTORIA)))
 (Signature)	GREG WILSON SECRETARY
Date: <u>18</u> / <u>10</u> / <u>10</u>	
In the presence of:-	
 (Signature of Witness)	<u>Tanya Hotschilt</u> (Print Name)


THE COMMON SEAL OF THE GOULBURN-MURRAY RURAL WATER CORPORATION WAS HERETO AFFIXED IN THE PRESENCE OF)))
 (Signature)	 DAVID STEWART MANAGING DIRECTOR
Date: <u>27</u> / <u>10</u> / <u>10</u> 	RUSSELL BARNIER General Counsel and Corporate Secretary

THE COMMON SEAL OF THE GOULBURN-BROKEN CATCHMENT MANAGEMENT AUTHORITY WAS HERETO AFFIXED IN THE PRESENCE OF)))
 (Signature)	CHRIS NORMAN CHIEF EXECUTIVE OFFICER
Date: <u>27</u> / <u>10</u> / <u>10</u>	
 (Signature)	PETER RYAN CHAIRMAN

THE **COMMON SEAL OF THE NORTH-CENTRAL CATCHMENT MANAGEMENT AUTHORITY** WAS HERETO AFFIXED IN THE PRESENCE OF)
)
)



.....
(Signature) **DAMIAN WELLS**
CHIEF EXECUTIVE OFFICER

Date: 27 / 10 / 10


.....
(Signature) **GEOFF WILLIAMS**
CHAIRMAN

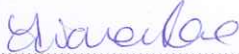


THE **COMMON SEAL OF THE ENVIRONMENT PROTECTION AUTHORITY** WAS HERETO AFFIXED IN THE PRESENCE OF)
)
)



.....
(Signature) **JOHN MERRITT**
CHIEF EXECUTIVE OFFICER

Date: 26 / 10 / 10

In the presence of:-


.....
(Signature of Witness) **FIONA RAE**
(Print Name)

SIGNED by the **EXECUTIVE DIRECTOR** of **FARM SERVICES VICTORIA** of the **DEPARTMENT OF PRIMARY INDUSTRIES** for and on behalf of the **STATE OF VICTORIA**)
)
)


.....
(Signature) **RON HARRIS**
EXECUTIVE DIRECTOR

Date: 22 / 10 / 2010

In the presence of:-

.....
(Signature of Witness) (Print Name)

XXXXXXXXXXXX

3 Purpose

This Agreement records the arrangements between agencies working on irrigation drainage management in the G-MW irrigation areas.

The overarching purpose is to demonstrate that management of irrigation drains is actively reducing adverse impacts on receiving waterways.

This is achieved by:

- ensuring a consistent and transparent process is used to set water quality targets for irrigation drains in priority catchments
- ensuring management actions are linked to resource condition targets
- fostering and maintaining good working relationships and clear accountabilities between responsible agencies
- fostering continual improvement in monitoring and reporting systems
- working closely with farm and environment programs.

The agreed implementation schedule to achieve the purpose of this Agreement is contained in Appendix 1.

4 Signatories

The signatories to this revised Agreement are:

- Department of Sustainability and Environment (DSE)
- Goulburn Broken Catchment Management Authority (GBCMA)
- North Central Catchment Management Authority (NCCMA)
- Goulburn-Murray Rural Water Corporation (G-MW)
- Department of Primary Industries (DPI)
- Environment Protection Authority Victoria (EPA).

5 Policy and legislative context

Many (at least three Federal and eleven State Acts of Parliament and numerous policies, strategies, plans and procedures) legislative mechanisms exist that, regardless of this Agreement, are there to ensure that adverse impacts from Surface Water Management Systems (SWMS) are minimised. Appendix 2 lists the relevant legislative mechanisms.

The Federal and State legislation, policies and strategies, as well as regionally based plans and strategies, set the general framework within which actions taken under this Agreement must comply. This Agreement is not intended to in any way prevent

the Minister from using additional powers in addressing the water quality aspects of irrigation drainage.

If there is a conflict between the requirements of this Agreement and any legislation at the time this Agreement is signed, or during the implementation of this Agreement, the requirements of the legislation shall prevail.

6 Geographic area covered by this Agreement

The geographic area covered by this Agreement is generally defined by the Irrigation Districts within the Goulburn Broken and North Central CMA areas and particularly the SWMS servicing those Districts.

The SWMSs that are included within this Agreement are those that service irrigated properties within G-MW's irrigation areas (excluding Nyah Irrigation District) and include both primary and community SWMSs (see map in Appendix 3). Land within these districts naturally drains to the River Murray and its tributaries in northern Victoria.

The region contains 35 major SWMS catchments with approximately 4,480 km of existing G-MW managed drains (and 1,990 km planned), servicing around 472,000 ha of catchment.

In addition, there are a number of Community Surface Water Management Systems (CSWMSs) that discharge directly to waterways that are independently managed and several drains owned by the North Central CMA.

7 Background

This Agreement builds on the achievements of signatories to the *Memorandum of Understanding for Irrigation Drainage Management and Water Quality* (IDMOU), which was signed in June 2004. The original IDMOU, which stemmed in part from the Nolan ITU 2001 review of the environmental aspects of Northern Victoria's surface drainage program in irrigation areas, was jointly signed by the EPA, DSE, G-MW, and the Goulburn Broken and North Central CMAs. Its purpose was to:

- Clarify respective roles and responsibilities of agencies
- Establish processes to set pollutant reduction targets for drains
- Set priority SWMSs, monitoring and management actions
- Establish accountability
- Make arrangements to apply sanctions if proved necessary
- Create annual reporting arrangements.

Since the IDMOU was signed in 2004, interagency relationships have improved and common reporting has provided better access to performance reporting, plans and targets.

The IDMOU was developed in operating and environmental conditions that are vastly different to those that exist in 2010. Irrigation drainage flows have reduced considerably due in part to reduced rainfall and irrigation allocations, but also to improved farm irrigation efficiency. The irrigation supply system modernisation process underway will also lead to reduced drainage flows due to the virtual elimination of unplanned outfalls.

Following a 2010 review of the first six years of implementation¹, it was agreed that the existing target setting process was overly prescriptive and resource intensive. The process did not reflect the existing drainage related risks. These factors have prompted a change to a risk based process, to be more flexible in changing conditions, and still maintain the successful partnership approach between signatory agencies.

8 Guiding principles

The following guiding principles reflect the collective vision of signatory agencies for surface irrigation drainage management across the G-MW irrigation areas. In signing this Agreement, signatories commit to these guiding principles.

Irrigation drainage management:

- Requires community involvement, empowerment and accountability.
- Requires agencies to work together cooperatively in a transparent and accountable way.
- Must comply with federal and state legislation, policy and strategies as well as regional strategies and plans.
- Will be achieved by maintaining an IDMOU Committee that is responsible for setting, monitoring and reporting on operational processes relevant to this Agreement.
- Will require agencies to meet their respective responsibilities, as detailed in this Agreement, to the best of their ability and in cooperation with other parties to this Agreement.

¹ RMCG 2010. *IDMOU Review Stage 1 Final Report*. Report prepared for the Department of Sustainability and Environment.

9 Operational guidelines

This section describes the processes that the Committee will use for the sustainable and integrated management of SWMSs in the G-MW irrigation areas. Whilst this Agreement is intended to be flexible, allowing the execution of operational matters in a manner that is proportionate to the level of risk involved, the elements described below are considered fundamental to cooperative management of irrigation drainage.

9.1 The role of Land and Water Management Plans

The Land and Water Management Plans (LWMPs) and surface water management sub-strategies, provide the strategic framework for irrigation drainage planning, management and implementation at a regional level (Table 1).

Table 1. Regional planning documents

CMA	LWMP	Sub-Strategy
Goulburn Broken	Shepparton Irrigation Region Catchment Implementation Strategy (SIRCIS) 2009	SIRCIS Surface Water Management Program 5 Year Review 2006/07
North Central	Loddon Campaspe Irrigation Region LWMP 2007	Loddon-Murray Surface Water Management Strategy (2002) and Draft Implementation Plan (2004)

The LWMP and surface water management sub-strategies will be used to document SWMS priorities, targets and related monitoring requirements developed under this Agreement.

Existing regional reporting processes for LWMPs, implementation or investment processes will be used and modified as required to meet the annual reporting requirements under this Agreement. Further information on annual reporting is provided in Section 12.3.

The processes for establishing SWMS priorities, setting targets and monitoring requirements, and changes to these processes under different drainage risk conditions, will be established by the Committee and documented in a stand alone document (see Sections 9.2 and 9.3).

LWMPs and sub-strategies, including the SWMS priorities, targets and monitoring, will be reviewed and updated regularly, as required by the *Guidelines for the Preparation of Land and Water Management Plans that apply to designated irrigation areas of Victoria* (DSE 2008).

9.2 Planning processes to be established

The Committee will establish and clarify planning processes to cover:

- **Prioritisation:** The process for determining and justifying the order for existing SWMS to be considered for setting targets and monitoring requirements.
- **Resource Condition Target setting:** The process for setting and justifying irrigation drainage related Resource Condition Targets (RCTs).
- **Management Action Target setting:** The process for setting and justifying Management Action Targets (MATs).
- **Monitoring:** The process for setting consistent monitoring requirements and standards for establishing or reviewing drainage catchment monitoring sites, parameters and measures.
- **Response thresholds:** The process for determining when a change in the processes to set priorities, targets or monitoring is necessary based on the level of risk to receiving waterways from drainage outfalls (Section 9.4).
- **Reporting:** The process of documenting implementation achievements and progress towards meeting RCTs and MATs.

Agency annual reports will relate monitoring data analysis and current conditions to the risk response thresholds. Reporting processes adopted will reduce any duplication of effort.

The Committee will work to ensure that the above processes are performed consistently across each of the CMAs and the G-MW irrigation areas as a whole.

9.3 The role of the Catchment Asset and Operation Plan

A Catchment Asset and Operation Plan (CAOP) will be developed to cover the G-MW irrigation areas. The purpose of the CAOP is to ensure that all general information on the operation and maintenance of SMWSs and how they relate to catchment assets, such as wetlands, is documented in one place.

Schedules to the CAOP will be developed on an as needs basis to document drainage catchment specific issues. For example, where special circumstances or operational requirements exist, or where it is required to do so under permit conditions.

9.4 Response thresholds for change of operational guidelines

Signatories to this Agreement agree that 'risk level response thresholds' will be set to prompt agencies to adopt changed operational guidelines when needed. These thresholds may reflect the risks associated with a series of wet years as opposed to a series of dry years. That is, the operational guidelines adopted are commensurate

with the risks involved. These response thresholds will be determined by the Committee.

The response thresholds must:

- be based upon risks to the beneficial uses of receiving waterways from drainage flows;
- be based on a medium term consideration of the operating environment, rather than being reactionary to single events;
- indicate what processes will change if response thresholds are exceeded.

Adequate monitoring will be required to ensure that response thresholds can be identified and acted upon if reached.

10 Committee

10.1 Membership

The Committee will comprise one representative from each organisation that is a signatory to this Agreement.

10.2 Meetings

To fulfil the purpose of this Agreement, the Committee will meet a minimum of twice yearly. Additional meetings may be arranged as required for the purposes of planning, monitoring evaluating and reporting activities.

Committee decisions will be made cooperatively, with significant decisions only being made if at least five² of the signatory organisations are represented.

11 Signatory roles and responsibilities

The strategic surface irrigation drainage management roles of each signatory to this Agreement are summarised in Table 2 (see Appendix 4 for more detail).

Table 3 outlines the operational responsibilities accepted by each signatory to this Agreement.

² After CMA amalgamation this will change to four (4) representatives.

Table 2. Strategic roles related to surface irrigation drainage management

Agency	Strategic roles
DSE	<p>DSE is responsible for overseeing and facilitating sustainable catchment and water management. In relation to irrigation drainage management, roles include:</p> <ul style="list-style-type: none"> ▪ Administering the <i>Water Act 1989</i> and the <i>Catchment and Land Protection Act 1994</i> and advising the relevant Minister on its implementation. ▪ Set guidelines for and fund the development of LWMPs and surface water management strategies. ▪ Investment in sustainable irrigation programs, including farm programs and irrigation drainage schemes (planning, design, construction, monitoring).
CMAs	<p>CMAs have a responsibility to coordinate the ecologically sustainable development and use of catchments, floodplains and waterways through mechanisms, including protection and rehabilitation of water quality, flow and aquatic habitats.</p> <p>In relation to irrigation drainage management, roles include:</p> <ul style="list-style-type: none"> ▪ Developing community-based strategies and plans that foster sustainable land and water management as well as providing guidelines to facilitate sustainable surface water management. ▪ Drainage service provider and responsible for the development of Regional Catchment Strategies (RCSs), LWMPs, SWMIPs and other water quality related strategies and plans. <p>The NCCMA is responsible for the operation and maintenance of some drainage schemes in its catchment.</p>
EPA	<p>The overall role of the EPA is to enable the protection of the beneficial uses of Victoria’s environment through employing a range of measures consistent with its responsibilities under the <i>Environment Protection Act 1970</i>.</p> <p>In relation to irrigation drainage management, roles include:</p> <ul style="list-style-type: none"> ▪ Setting water quality standards for Victoria ▪ Ensuring compliance with those water quality standards.
G-MW	<p>G-MW is responsible for providing environmentally sustainable bulk water delivery and drainage services.</p> <p>In relation to irrigation drainage management, G-MW’s role is:</p> <ul style="list-style-type: none"> ▪ Drainage service provider (design, construct, operate, maintain, monitor) and a key stakeholder in the development of RCSs, LWMPs, SWMIPs and other water quality related strategies and plans.
DPI	<p>DPI facilitates the sustainable development of Victoria’s primary industries to achieve strong economic activity, a high quality natural resource base in the long term, and resilient industries and communities.</p> <p>In relation to irrigation drainage management and management actions, DPI’s role is:</p> <ul style="list-style-type: none"> ▪ service provider to the CMAs and DSE with responsibilities for facilitating the implementation of farm improvement works and measures, and community SWMSs identified for implementation ▪ to operate under regional LWMPs and other documents that support the RCSs.

Table 3. Operational responsibilities of signatories to the IDMOU

Work	Description	Responsibility
Committee coordination	Convene and chair Committee meetings.	▪ DSE
	Provision of administrative support.	▪ DSE
	Time and travel expenses for Committee members	▪ From respective agency budgets.
	Committee meeting accommodation and catering for Committee meetings.	▪ Host agency (rotating)
Resource Condition Target setting	Guidelines for target setting	▪ DSE
	Developing, setting and documenting resource condition targets for SWMSs.	<ul style="list-style-type: none"> ▪ CMAs – Implementation Committee (or equivalent) or Board as appropriate. ▪ Other agencies – through involvement in the CMA Implementation Committees (or equivalent).
Management Action Target setting	Developing, setting and documenting Management Action Targets for SWMSs.	<ul style="list-style-type: none"> ▪ CMAs – via their Board, upon recommendation from its Implementation Committee (or equivalent). ▪ Other agencies – through involvement in the CMA Implementation Committees (or equivalent) or technical working group.
Monitoring	General catchment water quality and quantity monitoring at a regional level.	▪ CMAs
	General information on the condition of regional water resources.	<ul style="list-style-type: none"> ▪ DSE ▪ EPA (biological)
	Monitoring to allow reporting against resource condition targets and management action targets under its jurisdiction.	<ul style="list-style-type: none"> ▪ G-MW ▪ CMAs (DPI implement)
	State wide water quantity and water quality monitoring.	▪ DSE
Management Action Implementation	Seek funding (capital and operating) to support the achievement of management action targets.	<ul style="list-style-type: none"> ▪ DSE and other government agencies provide funding ▪ G-MW – conducts some tasks and seeks funding ▪ CMAs – seek funding ▪ DPI – seeks funding and provides services under the RCS on behalf of the CMAs or other investors

Cont.

Work	Description	Responsibility
Special catchment analyses	When less than desirable water quality outcomes occur in a SWMS, proactive special catchment analyses can be undertaken with the objective of commencing before catastrophic events occur. ³	<ul style="list-style-type: none"> ▪ Commissioned and funded by the relevant CMA, at their discretion. ▪ Input from all agencies.
	Support role via consultation on an as needs basis.	<ul style="list-style-type: none"> ▪ EPA
Review of Agreement & Committee	Five-yearly review of Agreement, conducted by an independent party.	<ul style="list-style-type: none"> ▪ DSE - funding ▪ Input from all agencies
Ensuring compliance	As appropriate, using compliance and enforcement powers to address breaches of water quality standards	<ul style="list-style-type: none"> ▪ EPA
Dispute resolutions	Working cooperatively to resolve disputes.	<ul style="list-style-type: none"> ▪ All parties
	For major disputes that cannot be resolved cooperatively.	<ul style="list-style-type: none"> ▪ DSE to coordinate a dispute resolution process. ▪ Disputing parties to share costs of a mediator.
Threshold setting	Set risk and response thresholds that determine if and when changes to priorities, monitoring and/or reporting may be required.	<ul style="list-style-type: none"> ▪ Committee
Annual report	Annual report – combined annual report for all agencies including a review of conditions to assess risks and response thresholds.	<ul style="list-style-type: none"> ▪ DSE to facilitate ▪ Input by all agencies.

12 Terms of Agreement

12.1 Duration

This Agreement is effective from the date of signing and will remain in place until 1 September 2015 after which it will only terminate if agreed upon by all signatories.

Withdrawal from this Agreement and its obligations, can only take place by the signatory that wishes to withdraw providing four weeks written notice to all other parties to this Agreement.

Any notice of withdrawal from this Agreement shall be addressed to each of the Chief Executive Officers (or equivalent) of the parties to this Agreement with a copy of the notice to be also sent to the Committee contact for each agency.

³ Special Catchment Investigations for poor water quality outcomes associated with catastrophic events are covered by other mechanisms such as the Regional Algal Coordinating Committee.

Unless otherwise agreed by the remaining members of the Committee, the withdrawal of one or more of the parties to this Agreement will not necessarily change the roles and responsibilities of the other parties.

12.2 Modification

This Agreement may be modified, altered or revised at any time by obtaining the written Agreement of all signatories.

Modifications may be required when the risk-based response thresholds are activated or if significant change in Federal or State legislation, policies, or strategies occurs.

12.3 Review and reporting

The Committee shall review implementation progress annually and produce a combined annual report for distribution to all signatory agencies.

The Committee will review conditions annually to check against response thresholds and to make any necessary revisions and recommendations to change operational standards. The response threshold review will be a component of the combined annual report, and will be reported upon in the resulting document.

An independent review of the Agreement will be held within five years from the date of its signing to evaluate:

- the changes in the operating environment since signing of the Agreement and how these impact on the relevance and implementation of the Agreement (e.g. funding, drought, irrigation supply system modernisation, government focus etc).
- the appropriateness of the signatories to the Agreement.
- the appropriateness of the terms of Agreement, guiding principles, and roles and responsibilities.
- any other aspects of the Agreement as agreed by the Committee.

The Agreement will be revised or renewed by obtaining the unanimous Agreement of all signatories to the Agreement.

12.4 Dispute resolution

In the event of a dispute between any signatories to this Agreement, issues should be resolved in a cooperative manner with a spirit of goodwill. The parties in question will each use their best endeavours to resolve the dispute between them at an operational level.

If the matter is not resolved through further negotiations, mediation options will be explored.

13 Glossary

Term	Definition
Assets	Components of a Surface Water Management System owned by G-MW, CMA, landholders or a local government.
CAOP	Catchment and Asset Operation Plan
CMA	Either the North-Central Catchment Management Authority or the Goulburn-Broken Catchment Management Authority
CSWMS	<i>Community Surface Water Management Systems</i> are owned and operated by a community group unless otherwise specified.
CSWMP	The Community Surface Water Management <i>Program</i> facilitates the development of community groups for CSWMS, and supports the design management and implementation of CSWMS.
DPI	Victorian Department of Primary Industries
DSE	Victorian Department of Sustainability and Environment
EPA	Victorian Environment Protection Authority
Farm Works	Private works implemented on farm as part of the implementation of a Surface Water Management System and which service only the property on which they are located.
GBCMA	Goulburn-Broken Catchment Management Authority
GMID	<i>Goulburn-Murray Irrigation District</i> - as defined in the <i>Water Act 1989</i>
G-MW	Goulburn-Murray Rural Water Corporation
IC	<i>Implementation Committee</i> - a sub-committee of a CMA delegated with the responsibility for developing and implementing Land and Water Management Plans
IDMOU Committee	Committee comprising one nominated representative from each signatory to this IDMOU, which is responsible for the ongoing coordination of activities to be performed under this IDMOU
Irrigation Area	A specifically designated area of irrigated and non-irrigated land which is part of an Irrigation District. e.g. Shepparton Irrigation Area
Irrigation District	An area of land as defined in the <i>Water Act 1989</i> .
Land and Water Management Plan (LWMP)	In the GBCMA, this is the Shepparton Irrigation Region Catchment Strategy. In the NCCMA, it is the Loddon Campaspe Irrigation Region Land and Water Management Plan
LCIR	Loddon Campaspe Irrigation Region
LMIR	Loddon Murray Irrigation Region
LMSWMS	Loddon Murray Sustainable Water Management Strategy
MAT	Management Action Target. Works or measures implemented to achieve a resource condition outcome (see RCT).
NCCMA	North-Central Catchment Management Authority

Cont.

Term	Definition
Review	An assessment that usually involves fundamental analysis, postulation and development of conclusions and recommendations.
RCS	<i>Regional Catchment Strategy</i> - a document, usually endorsed by the Minister, which outlines and justifies the proposed CMA Board investment strategy in Catchment Management.
RCT	Resource Condition Target. Targets as specified in the <i>Regional Catchment Strategy</i> or Land and Water Management Plan.
Regional Drain	Drainage works undertaken in a catchment that service more than one property and are not regarded as farm works, e.g. Surface Water Management Systems or Primary Drains.
Resource Condition	An indicator of the health of land or water resources or systems, for example water quality.
Site Discharge Licence/Agreement	Is either a licence issued by the EPA under the <i>Environment Protection Act 1970</i> or an agreement with G-MW containing the conditions under which the owner or operator of premises may discharge waste.
SIR	Shepparton Irrigation Region
SIRIC	The SIR Implementation Committee
SIRCS	Shepparton Irrigation Region Catchment Strategy
SWMIP	Surface Water Management Implementation Plans outline the "what, where, when and how" with respect to the implementation of surface water management works and measures in the irrigation areas of Northern Victoria.
SWMS	<i>Surface Water Management System</i> - sometimes referred to as a Regional Drain, a Community Drain or a Primary Drain
SWMS Receiving Waterway	A natural river, stream, wetland, or lake which the outfall of a Surface Water Management System discharges to.
Waterway	A natural river, stream, wetland, or lake which frequently carries water as defined in the <i>Water Act 1989</i>
Whole of CMA Region	The whole of the area under the jurisdiction of a CMA and within the geographic area covered by this IDMOU
WQS	Goulburn Broken Water Quality Strategy

Appendix 1: Implementation schedule

IDMOU Implementation Action	Timing		Progress (%)	Prime Responsibility	Other Parties Involved	
	Original	Current				
1	Management, review and ensuring delivery of actions required under this Agreement	Ongoing	Ongoing		DSE	All
2	Specify prioritisation, monitoring and target setting processes to achieve the purposes of this Agreement	June 2011	June 2011		DSE	G-MW & CMA
3	Creation of risk related response thresholds	February 2011	February 2011		DSE	All
4	Set standards for reporting and monitoring for inclusion in existing processes.	February 2011	February 2011		DSE	G-MW, CMA & DPI
5	Clarify the purpose and content required for the overarching CAOP. Document the agreed O&M processes for the drainage system and its assets in the CAOP.	June 2011			GMW GBCMA NCCMA	
6	Review RCTs and MATs whenever conditions change as per section 11.3	As needed			GBCMA NCCMA	GMW DSE DPI
7	Committee meetings – six monthly.	Ongoing ▪ April ▪ October	Ongoing ▪ April ▪ October		DSE (may be initiated by any Signatory)	All
8	Annual review including: ▪ Annual reporting ▪ Review of SWMS response thresholds. ▪ Making any necessary revisions and recommendations to change existing processes. ▪ Reminder to update key documents with revised targets (eg. LWMPs, CAOP etc).	September of each year	September of each year		All Committee Committee Committee	All
9	LWMP review and renewal processes – undertake SWMS monitoring, prioritisation and target setting in accordance with IDMOU agreed processes.	Every 5 years	Every 5 years		GBCMA NCCMA	G-MW, DSE & DPI

Cont.

IDMOU Implementation Action	Timing		Progress (%)	Prime Responsibility	Other Parties Involved
	Original	Current			
10	Independent review of IDMOU implementation, including: <ul style="list-style-type: none"> ▪ Changes in the operating environment ▪ Impact on the relevance and implementation of the Agreement. ▪ Appropriateness of Agreement signatories. ▪ Appropriateness of Agreement terms, guiding principles, roles and responsibilities. ▪ Other aspects of the Agreement as agreed by the Committee. 	September 2015	September 2015	DSE	All
11	Other actions as agreed at Committee meeting.	As agreed		As agreed	As agreed

Appendix 2: Legislation, policies and strategies

Federal and State legislation, policies and strategies, as well as regionally based plans and strategies, set the general framework within which actions taken under this Agreement must comply.

Each signatory acknowledges that the documents within the framework have the following general order of importance:

- Federal and State Legislation
- Federal and State Policy
- Federal and State Strategy
- Regional Strategy
- Regional Plans
- IDMOU committee agreed policies and strategies
- IDMOU committee procedures.

The following sections list the relevant legislation, policies and strategies. Figures A2.1 and A2.2 illustrate the legislative and management framework that underpin the IDMOU.

It is acknowledged that if there is a conflict between the requirements of this Agreement and any legislation at the time the IDMOU is signed, the requirements of the legislation shall prevail.

Any significant change in Federal or State legislation, policies, or strategies, may necessitate a review of this IDMOU. If this occurs, a review in accordance with section 12.3 of this Agreement will be undertaken, with changes being made to ensure the amended Agreement is consistent with the new State or Federal legislation.

In the case of any inconsistency between this Agreement and any new Federal or State legislation, the new legislation shall prevail.

A2.1 Federal

A2.1.1 Acts of Parliament

- *Water Act 2007*, Schedule 1 Murray Darling Basin Agreement, Schedule B Basin Salinity Management Strategy
- COAG Intergovernmental Agreement on Murray Darling Basin Reform 2008, *Murray Darling Basin Act*
- *Environment Protection and Biodiversity Conservation Act 1999*.

A2.1.2 Policies, Strategies, Plans, Guidelines and Procedures

- Murray Darling Basin Water Quality Policy 1990
- National Strategy for Ecologically Sustainable Development 1992
- Murray Darling Basin Agreement 1993
- National River Health Program 1994
- National Water Quality Management Strategy 1995
- Murray Darling Basin Algal Management Strategy 1997
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000
- MDB Integrated Catchment Management Policy 2001
- Australian Guidelines for Water Quality Monitoring and Reporting 2002
- Council of Australian Governments policies and procedures (including the National Framework for Water Compliance and Enforcement, and the Intergovernmental Agreement on a National Water Initiative 2004)
- Australian Government programs, including Caring for our Country
- National Environmental Guidelines for Piggeries 2004.

A2.2 State

A2.2.1 Acts of Parliament

- Environment Protection Act 1970
- Planning and Environmental Act 1987
- Flora and Fauna Guarantee Act 1988
- Water Act 1989
- Water Industry Regulatory Order 2003
- Local Government Act 1989
- Heritage River Act 1992
- Murray Darling Basin Act 1993 (Victoria)
- Catchment and Land Protection Act 1994
- Fisheries Act 1995
- NSW Environmental Planning and Assessment Act 1972
- NSW Protection of the Environment Operations Act 1997.

A2.2.2 Policies, Strategies, Plans, Guidelines and Procedures

- Victorian Nutrient Management Strategy for Inland Waters 1995
- Victorian Biodiversity Strategy 1998
- Victoria's Salinity Management Framework 2000
- Victorian River Health Strategy 2002
- State Environmental Protection Policy Waters of Victoria 2003
- Our Water Our Future – Securing our Water Future Together – White Paper 2004
- Our Water Our Future – The Next Stage of the Government's Plan 2007
- Northern Region Sustainable Water Strategy 2009
- EPA Publication 464: Guidelines for Environmental Management – Use of Reclaimed Water 2003
- Victoria's Native Vegetation Management Framework 2002
- Code of Practice for Cattle Feedlots 1995
- Irrigation Development Guidelines - Advisory Note (Victoria) 2010
- Draft Murray Regional Strategy, October 2009 (replacing NSW Murray Regional Environmental Planning Policy No 2)
- Ministerial determinations including:
 - Water-Use Objectives, June 2007
 - Standard Water-Use Conditions, June 2007
 - Policies for managing take and use licences, September 2009.

A2.3 Regional

A2.3.1 North Central Catchment Management Authority Area

- North Central Regional Catchment Strategy 2003
- Loddon Campaspe Irrigation Region LWMP draft 2007
- Loddon-Murray Surface Water Management Strategy 2002
- Loddon-Murray SWMIP (draft) 2004
- Catchment Water Quality Strategy (Loddon, Campaspe)
- Nutrient Action Plans (Avoca, Campaspe, Loddon)
- North Central River Health Strategy 2005

A2.3.2 Goulburn Broken Catchment Management Authority Area

- Goulburn-Broken Regional Catchment Strategy 2003
- Shepparton Irrigation Region Catchment Strategy - 2006 Review (previously the Shepparton Irrigation Region Land and Water Salinity Management Plan)
- Goulburn-Broken Water Quality Strategy 1997
- Surface Water Management Strategy 2007
- Dairy Cattle Feedpad Guidelines 2002
- Goulburn-Broken Regional River Health Strategy 2005

A2.4 Organisation Policies, Strategies and Procedures

- DSE/CMA/DPI Victorian Investment Framework
- Goulburn Broken CMA/DPI/EPA/G-MW Dairy Shed Effluent Procedures
- Goulburn Broken CMA Target Setting Process
- EPA Licensing Processes
- G-MW EMS Emergency Action Response Plans
- G-MW BGA Emergency Response Plans
- G-MW Guidelines for Management of Surface Run-off from Properties Irrigated with Reclaimed Water
- G-MW Drainage Policy and Strategy
- G-MW Environmental Management System
- Community Surface Water Management System Design Guidelines
- G-MW Primary Drain Design Guidelines

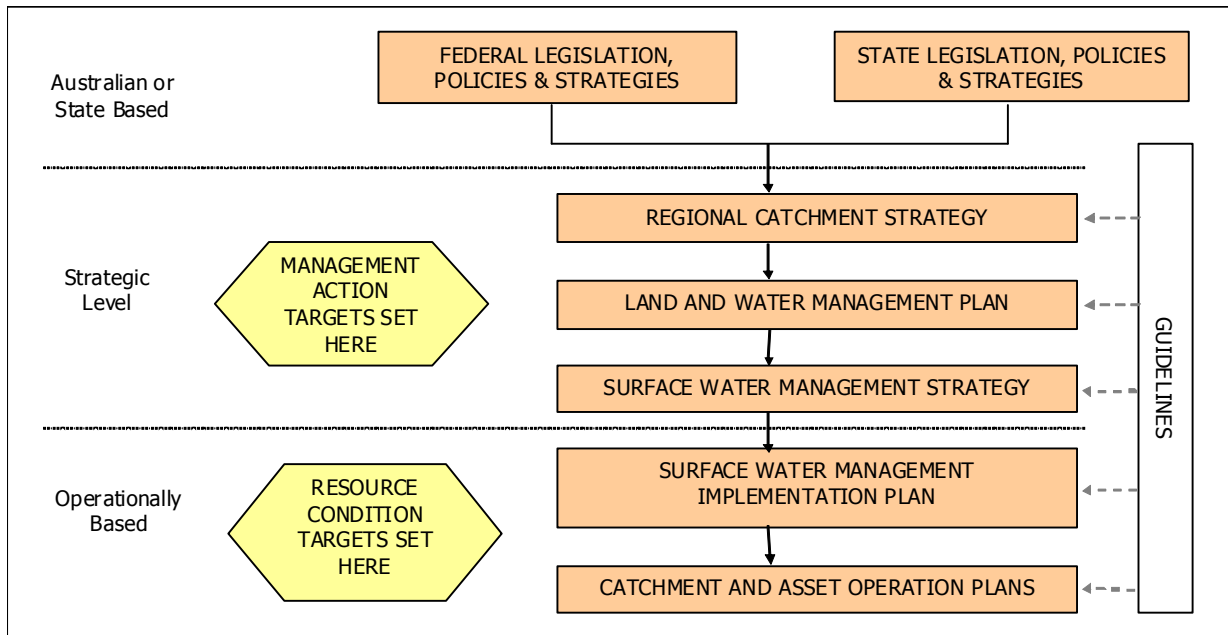


Figure A2.1: Hierarchy of Legislation, Policy, Strategies and Plans

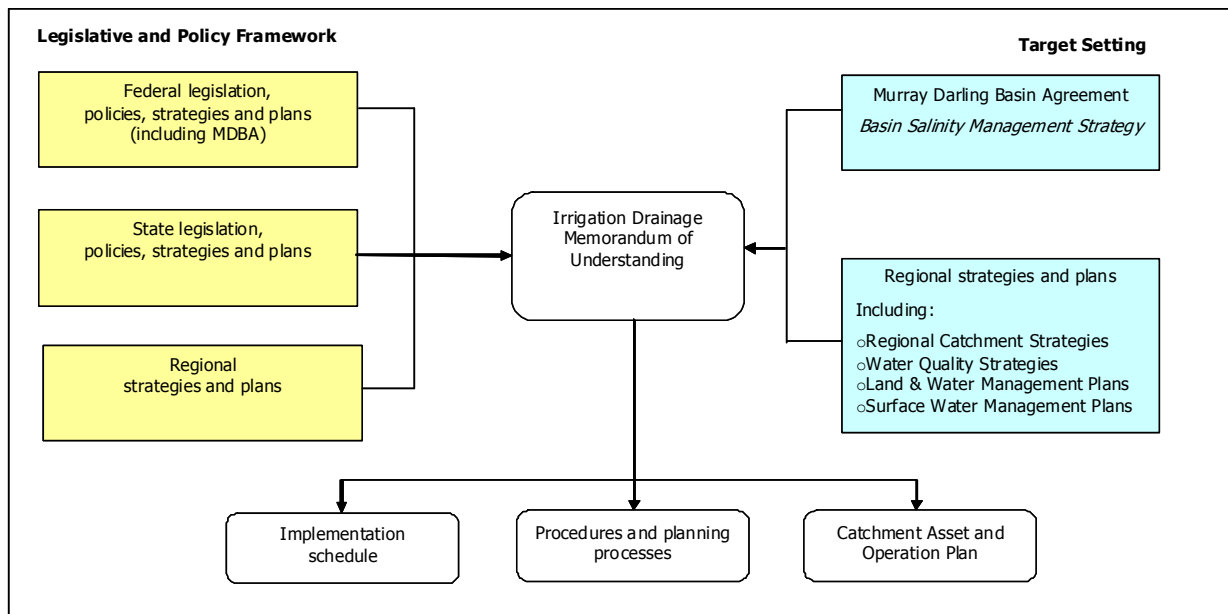


Figure A2.2: IDMOU Management Framework

Appendix 3: Map of G-MW irrigation areas



Appendix 4: Agency roles and responsibilities

1 Department of Sustainability and Environment

1.1 IDMOU Coordination

DSE will convene and chair meetings of the IDMOU Committee.

1.2 Strategic Direction

DSE provides strategic direction:

- by administering *the Water Act 1989 and the Catchment and Land Protection Act 1994* and advising the relevant Ministers on its implementation.
- by developing guidelines for the preparation of LWMPs in designated irrigation areas of Victoria.
- as the agency responsible for developing and implementing Victoria's Salinity Management Framework 2000, the Northern Region Sustainable Water Strategy 2009, and the Victorian Irrigation Drainage Program Strategic Direction 2010.
- as the lead agency responsible for implementing the Basin Salinity Management Strategy in Victoria.

1.3 Funding

DSE is responsible for enabling and guiding investment in regional sustainable irrigation programs consistent with accredited LWMPs. This may include providing funding for:

- landowner education, extension and implementation of farm works .
- design and construction of SWMSs in accordance with agreed cost shares.
- preparation of Catchment and Asset Operation Plans (or equivalent documentation process).
- review and renewal of LWMPs or surface water management sub-strategies, including the development of resource condition targets and management action targets.
- monitoring, evaluation and reporting on the implementation of LWMPs and progress against targets.

Please note that other agencies, that are not signatories to this Agreement, may also provide funding for these types of activities.

DSE is responsible for funding the independent five-year review of this Agreement.

1.4 Target Setting

DSE has a support role in the target setting process through its:

- responsibility to develop the risk based approach for setting targets
- oversight of regionally developed LWMPs.

1.5 SWMS Design and Construction

DSE has a support role in SWMS design through the provision of design guidelines for the establishment and sustainable operation of private and public regional SWMS.

Also DSE has a role in planning approval/permits for drainage systems.

1.6 Monitoring

DSE has a support role through its responsibility to develop risk based decision support tools to quantify monitoring requirements for this Agreement.

DSE is responsible for the management of central databases containing surface water quality and quantity data, and groundwater level and quality data to store and enable access to data for monitoring sites located across the State including those in the area covered by this Agreement.

DSE is responsible for facilitating monitoring partnerships between regional agencies and combined regional water quality and quantity data collection and water quality analysis in these areas, which provide for a single, coordinated water quality and quantity monitoring network for the area covered by this Agreement.

1.7 Review and Analysis

DSE will coordinate and fund the independent five-year review of this Agreement.

1.8 Reporting

DSE has a support role through its responsibility to report to the Minister on Surface Water Management issues.

DSE will coordinate the preparation of the combined annual report on IDMOU implementation.

DSE has a support role through its responsibility to report to monitoring partner agencies (which may include Parties to this Agreement) on the performance of water quantity and quality data collection contractors.

2 Catchment Management Authorities

2.1 Strategic Direction

CMAAs provide strategic direction:

- a) by developing community-based strategies and plans that foster sustainable land and water management as well as providing guidelines to facilitate sustainable surface water management.
- b) through their role as a drainage service provider and through having responsibility for the development of RCSs, LWMPs, SWMIPs and other water quality related strategies and plans.

2.2 Funding

CMAAs advise DSE on funding requirements for surface water management through community based decision making processes carried out under the development of LWMPs and SWMIPs. This includes advice on the funding requirements for the design and construction of new SWMSs.

CMAAs are responsible for funding the operation, maintenance and replacement of the surface water management assets that they own/operate.

CMAAs are responsible for the funding of general catchment water quality and quantity monitoring at a regional basis.

CMAAs are responsible for funding any special catchment analyses that are undertaken.

2.3 Target Setting

CMA Boards, through their relevant Implementation Committee, are responsible for setting Resource Condition Targets and Management Action Targets.

2.4 Achievement of Targets

CMAAs are responsible for:

- the achievement of Resource Condition and Management Action Targets for SWMSs that they own
- the achievement of Resource Condition Targets for all Community Surface Drains that outfall directly to waterways
- the achievement of Resource Condition Targets within SWMS Receiving Waterways

- the achievement of farm and catchment based Management Action Targets irrespective of ownership of the SWMS
- undertaking additional Management Actions within a Surface Water Implementation Plan, so that the probability of Resource Condition Targets being achieved is increased.

2.5 SWMS Design and Construction

CMAs are responsible for the design and construction of any SWMSs that they will own.

2.6 SWMS Operation

CMAs are responsible for the:

- operation, maintenance and replacement of the SWMS assets that they own
- management of customer discharges to SWMSs that they own.
- development of the required SWMS Catchment Operation Plans (or equivalent documentation process).
- development of Catchment and Asset Operation Plans (or equivalent documentation process) for the SWMSs that they own.

2.7 Implementation of Farm Works

CMAs are responsible for providing education, extension services to landowners to encourage adoption of best management practices. The education and extension services are carried out by the DPI on the behalf of the CMAs.

Each CMA has ultimate responsibility for achieving farm Management Action Targets for their respective region.

2.8 Monitoring

CMAs are responsible for managing and undertaking monitoring sufficient to enable accurate reporting and assessment against achievement of Resource Condition Targets and Management Action Targets for which they have responsibility as set out in the relevant Schedules of the LWMPs and SWMIPs.

CMAs are responsible for general catchment water quality and quantity monitoring on a regional basis.

2.9 Review and Analysis

CMAs are responsible for:

- annual analysis of water quality and related quantity data.

- annual review of Management Action Target achievements.
- five-yearly Performance Review of achievement of Resource Condition Target and Management Action Targets.
- five-yearly review of the relationship between Management Actions and Resource Condition outcomes (and any optional reviews).
- arranging any special catchment analyses that are required for problem catchments or assets.

2.10 Reporting

CMAAs are responsible for:

- annual reporting of water quality and related quantity data.
- five-yearly Performance Review Reporting including:
 - i. reporting of Resource Condition Targets at a whole of CMA region scale.
 - ii. reporting of Resource Condition Targets at individual Resource Condition Target monitoring points for which they have responsibility as delineated in the Resource Condition Target Schedule to the relevant LWMP.
 - iii. reporting on the outcomes of any special catchment analyses that are undertaken.

2.11 Site Discharge Licensing

CMAAs are responsible for setting conditions for non-rural discharges (such as urban stormwater or industrial wastes) to SWMSs for which they are responsible.

3 Environment Protection Authority

3.1 Strategic Direction

EPA has a strategic role in setting state-wide policy to achieve sustainable surface waters.

EPA has a support role in the provision of strategic direction at a regional scale through its involvement with CMA Implementation Committees in their decision making processes.

EPA provides strategic direction through its role as a stakeholder in the development of RCSs, LWMPs, SWMIPs and other water quality related strategies and plans.

3.2 Target Setting

EPA has a support role in target setting through its:

- assistance to DSE in the development of target setting processes.
- involvement with Implementation Committees and their target setting process.

3.3 Monitoring

EPA conducts biological/macro-invertebrate monitoring to provide general information on the condition of Victoria's water resources.

3.4 Review and Analysis

EPA has a supporting role in Resource Condition and Management Action Target reviews through its involvement with Implementation Committees.

EPA provides a support role through being consulted on an as needs basis to provide input to analysis of catchments as part of the special catchment analyses.

3.5 Reporting

EPA is responsible for annual reporting on discharges to waterways and SWMSs from licensed premises, the number of licences, licensee performance and any change in licence status.

3.6 Investigation and Auditing

EPA undertakes or assists in undertaking its own investigation of catastrophic events in rivers and streams.

3.7 Site Discharge Licensing

EPA has a statutory responsibility for issuing licences for point source discharges from scheduled premises to SWMSs by the Environment Protection (Scheduled Premises) Regulations 1996.

3.8 Regulation

EPA has a statutory responsibility to regulate site discharges to waterways from scheduled premises and facilitate the prevention of pollution where the beneficial use of waters is impacted.

4 Goulburn-Murray Rural Water Corporation

4.1 Strategic Direction

G-MW provides strategic direction through its role as a drainage service provider and a key stakeholder in the development of RCSs, LWMPs, SWMIPs and other water quality related strategies and plans.

4.2 Funding

G-MW rates SWMS customers to secure funds to operate, maintain, and replace the surface water management assets that it owns.

4.3 Target Setting

G-MW supports the CMA in setting targets through its involvement with Implementation Committees in their decision making processes.

4.4 Achievement of Targets

G-MW is:

- responsible, assuming that the CMA's Management Action Targets are met, for the full achievement of Resource Condition Targets for SWMS which it owns
- responsible for Management Action Targets for which it has been assigned responsibility within a SWMIP. These will be Management Actions that are directly related to G-MW SWMS assets
- responsible to proactively work with the CMAs and undertake additional Management Actions where required, so that the probability of Resource Condition Targets being achieved is increased, regardless of CMA Management Action Target achievements.

4.5 SWMS Design and Construction

G-MW is the preferred constructing authority for SWMSs under contract to CMA. This includes managing the design and planning approval processes for new SWMSs for which they will have operational responsibility.

4.6 SWMS Operation

G-MW has a responsibility to:

- provide drainage services to land within the Irrigation Districts under its jurisdiction.
- operate, main, and replace of the SWMSs that it owns.

- manage customer discharges/inputs to SWMSs that it owns.
- develop relevant parts of the Catchment and Asset Operation Plans (or equivalent documentation process) for the SWMS that it owns.

4.7 Monitoring

G-MW is responsible for monitoring to enable reporting and assessment against achievement of the Resource Condition Targets and Management Action Targets under its jurisdiction.

4.8 Review and Analysis

G-MW has a supporting role in target reviews through its involvement with Implementation Committee decision making and analysis processes.

G-MW has a support role through assisting in providing information and assistance with the analysis of catchments as part of any special catchment analyses.

4.9 Reporting

G-MW is responsible for:

- annual water quality and related quantity reporting and five-yearly reporting of Resource Condition targets at individual monitoring points for which it has responsibility as described in the relevant LWMP.
- annual reporting of Management Action Targets achievements for which it has responsibility as described in the SWMIP.

4.10 Site Discharge Licensing

G-MW is responsible for entering into Agreements containing conditions under which non-rural point source discharges (such as urban stormwater or industrial wastes) may outfall SWMSs for which they have operational responsibility.

5 Department of Primary Industries

5.1 Strategic Direction

DPI provides strategic direction through its role as a technical service provider and a key stakeholder in the development of RCSs, LWMPs, SWMIPs and other water quality related strategies and plans. Where the DPI sees gaps in the strategic direction of CMAs, and on farm needs, DPI provides recommendations through the CMAs' Implementation Committees.

5.2 Target Setting

DPI supports the CMA in setting targets through its involvement with Implementation Committees in their decision making processes.

5.3 Achievement of Targets

DPI provide services to the CMA that contribute toward:

- the achievement of Resource Condition and Management Action Targets for SWMSs
- the achievement of Resource Condition Targets for all Community Surface Drains that outfall directly to waterways
- the achievement of Resource Condition Targets within SWMS Receiving Waterways
- the achievement of farm and catchment based Management Action Targets irrespective of ownership of the SWMS
- undertaking additional Management Actions within a Surface Water Implementation Plan, so that the probability of Resource Condition Targets being achieved is increased.

5.4 SWMS Design and Construction

DPI provides facilitation services through the Community Surface Water Management Program (CSWMP) to CSWMS groups to ensure projects are managed appropriately through the design phase.

DPI is currently responsible for Environmental Assessments (EA's) for Community and Primary SWMS. This will often include the identification and notification of cultural heritage sites. This is a critical component of the design phase.

DPI provides a facilitation and support role through the construction phase of CSWMS to ensure the projects are implemented to standard. DPI are involved in specific construction issues that may arise such as micro siting alignments that have environmental impacts, under boring trees and environmental issues that are flagged during construction.

5.5 SWMS Operation

DPI, in its role working on the ground with the community, supports SWMS operation by directing community members seeking assistance with drainage to the appropriate agencies.

5.6 Implementation of Farm Works

DPI carries out services on the behalf of the CMAs and through other State and Federal programs that provide education and extension to landowners to encourage sustainable and productive practices.

5.7 Monitoring

DPI play a supporting role in monitoring irrigation drainage by monitoring CSWMSs and on-farm Management Action Targets that have an impact on drainage water quality.

5.9 Review and Analysis

DPI will participate in the independent five-year review of this Agreement.

5.10 Reporting

DPI reports to CMAs and DSE on community drains and management action targets.

6 Summary

Table 1 summarises the key responsibilities of each of the Parties as detailed in clause 11 of this Agreement.

Table 1: Summary of Key Organisational Responsibilities Relating to Irrigation Drainage

Party	Responsibility													
	IDMOU Coordination	Strategic Direction	Funding	Target Setting	Achievement of Targets	SWMS Design & Construction	SWMS Operation	Implementation of Farm works	Monitoring	Review & Analysis	Reporting	Auditing	Site Discharge Licensing	Regulation
DSE	✓	✓	✓	S	x	S	x	x	S	S	S	✓	x	✓
CMA	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	S	x *
EPA	x	✓	x	S	x	x	x	x	✓	S	✓	S	✓	✓
G-MW	x	✓	✓	S	✓	✓	✓	x	✓	S	✓	x	S	x *
DPI	x	✓	S	S	S	S	S	✓	S	S	S	x	x	x

Note: ✓ indicates that the Party currently has a specific prime responsibility in relation to surface water management.
x indicates that the Party does not currently have, or has not developed, a specific prime responsibility for surface water management.
x * indicates that the Party will be investigating developing regulatory tools in relation to surface water management.
S indicates that the Party has a supporting role in relation to surface water management.