

Location information									с	contextual informa	ation							Management Mechanisms		Resource Condition Limit (F	CL)		Risk	Clarification / Verification Requirements of Jurisdictions
			Report Reference Documen	GHD tt Catalogue	Groundwater			Aquifer depth /	What are the main uses of groundwater i this management	'n	GW-SW Level of	Level of knowledge system	What are the key of environmental priorities	ls a groundwater al monitoring program in	Are potential GDEs	Are Cultural Flow value	s Mechanism		How are these		How was the R	CL.		
Country State/Region Australia Australia-wide	An assessment of groundwater management	Author Date NWC and SKM 2012	No. Type Waterlines Report Technical No.90	MDBA0017	Basin Australia-wide	Kind of Aquifer Several - regional plan	Aquifer Name Australia-wide report	Not specified	groundwater monitoring of salinity	Renewable? Not specified / unknown	Connectivity? Develops Not applicable Not spec unknown	fied / Limited definition	ageing monitoring bo	Yes, pre groundwater	identified? GDEs not identified	an issue? N/A	Type N/A	Mechanism Descriptions no RCL to manage	Not specified / unknown	What is the RCL? N/A	Not specified / unknown	Category N/A	Risk Descriptions N/A	
	and monitoring costs in Australia								trends				network throughout Australia * bore replacement/r urbishment should be a risk-based priority	monitored periodically ref										
Australia Australia-wide	Assessing the value of groundwater	NWC and 2012 Marsden Jacob Associates	Waterlines Report Non-Tech Series No 89	nical MDBA0040	Australia-wide	Several - regional plan	Australia-wide	Not specified	all uses considered	Not specified / unknown	Not applicable Within A Limit	located Reasonably defined	 varied - included salinity management 	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d metering of extraction bores	Also, water quality indicators s	Understanding of scientifically established relationships	N/A - several case studies assessed	Not specified / unknown	Degradation of groundwater qualit	e.g. Shepparton Sub y Surface Drainage Program (SSDP) to manage saline groundwater.	
Australia Australia-wide	Cost recovery for groundwater planning and management in Australia	NWC, Frontier 2012 Economics and SKM	Waterlines Report Non-Tech Series No 88	nical MDBA0041	Several	Several - regional plan	Several - regional plan	Not specified	Cultural, environmental, stock, domestic	Not specified / unknown	Not applicable Not spec unknowr	ified / Reasonably defined	 Sustaining environmental flows, salinity, algae, water- dependent ecosystems 	Not specified / al unknown /,	GDEs not identified	Cultural flows not considered/mentioned	financial incentives to reduce extraction	Groundwater charges to influence incentives for efficient groundwater use, this will limit groundwater use activities that impose costs, the costs may taked or variable depending several factors.	Not specified / be unknown	Not specified	Not specified / unknown	Hydrogeological integrity impact	Water availability, water quality	RCL not specified, derivation of mechanism not specified
Australia Australia-wide	Impacts of groundwater extraction on streamflow in selected catchments throughout Australia	NWC and SKM 2012	Waterlines Report Non-Tech	nical MDBA0042	Several	Several - regional plan	Several - regional plan	Not specified	Stock, domestic, irrigation, agricultural, industrial/commercial	Not specified /	Connected Not spec unknown	fied / Well define (based on numeric model)	d GW-SW interaction	Not specified / unknown	GDEs not identified	Cultural flows mentione but not incorporated in Plan	d trigger levels / temporary reductions	Cease to pump rules based on trigger levels where GW-SW connectivity i high	s Not specified / unknown	Not specified	Not specified / unknown	impact to river baseflows	Risk to streamflow depletion analysed by risk profiles for connectivity and significance of hydrogeological impacts	RCL not specified
	licensing, metering and extraction estimation arrangements and techniques in Australia		Series No 83		Several	Geveral - regional plan	Geveral - regional part	Not specified	agricultural, irrigation, de-watering	, unknown	unknowr	defined	associated wit over-extraction GDEs, groundwater quality	nith unknown m,	monitoring status unknown	but not incorporated in Plan	o nor specified		unknown	nu speulieu	unknown	integrity impact	assessment of the progress made in implementing systems in regions with priority aquifers	management mechanism not specified
Australia Australia-wide	Australian groundwater modelling guidelines	NWC, SKM, 2012 NCGRT	Waterlines Report Technical Series No 82	MDBA0044	Several	Several - regional plan	Several - regional plan	Not specified	Not specified	Not specified / unknown	Not specified / Not spec unknown unknown	ified / Well define (based on numeric	d GW-SW interaction	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Detailed scientific study	Not specified				RCL not specified, groundwater use not specified, management mechanisms not
Australia Australia-wide	Guidance for groundwater storage utilisation in water planning	GHD, Ecoseal, 2012 Vanessa O'Keefe, Hamstead Consulting, NWC	Waterlines Report Non-Tech Series No 81	nical MDBA0045	Several	Several - regional plan	Several - regional plan	Not specified	Stock, domestic, agricultural, industry	Not specified / unknown	Not specified / Not spec unknown unknowr	ified / Reasonably defined	 GW-SW interaction, GDEs, wetlands, water quality 	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	trigger levels / temporary reductions	Groundwater access governed by predetermined triggers, salinity, groundwater levels	Not specified / unknown	Numerous	Understanding scientifically established relationships	of GDEs, SW-GW connectivity, GW quality degradation	Risk assessments, impacts on GW-SW interaction, GDEs	specified
Australia Australia-wide	A national approach for investigating and managing poorly understood groundwater systems	RPS Aquaterra, 2012 g NWC	Waterlines Report Non-Tech Series No 78	nical MDBA0047	Several	Several - regional plan	Several - regional plan	Not specified	Stock, domestic	Not specified / unknown	Not specified / Not spec unknown unknown	ified / Limited definition	GDEs, GW- SW connectivity, water quality	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	trigger levels / temporary reductions	Trigger such as incremental development from low to high water entitleme water quality triggers, water level triggers	nt, Not specified / unknown	Not specified	Not specified / unknown	GDEs, SW-GW connectivity, GW quality degradation	Groundwater flow systems, confinement, surface water connectivity and recharge	RCL not specified, specific groundwater use not specified,
Australia Australia-wide	Progress in managed aquil recharge in Australia	er SKM, NWC and 2012 CSIRO	Waterfinee Report Technical Series No 73	MDBA0048	Not specified	Not specified	Not specified	Not specified	Not specified	Renewable (younger water; recharge occurring)	Connected Not spec unknown	ified / Well define (based on numeric model)	d GDEs, salinity sodicity, pathogens, chemicals, turbidity, radionuclides, pressure level contaminant migration, aquiler/aquita dissolution, well stability, greenhouse gases	y, Yes, groundwater monitored periodically is, is, ard	Yes; monitoring status unknown	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	Not specified	Not specified / unknown	GDEs, SW-GW connectivity, GW quality degradatior	Risk assessments, evaluations	RCL not specified, groundwater use not specified, management mechanisms not specified
Australia Australia-wide	Ecological water requirements of groundwat systems: a knowledge and policy review	NWC, Moya 2011 er Tomlinson	Waterlines Report Non-Tech Series No 68	nical MDBA0049	Not specified	Not specified	Not specified	Not specified	Not specified	Renewable (younger water; recharge occurring)	Connected Not spec unknown	ified / Reasonably defined	 GDEs, water quality, GW- SW interactio baseflow, subsurface ecosystems, phreatophytic ecosystems 	Yes, groundwater on, monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	distance rules for bores	Buffer zones arcund sensitive areas to reduce water table drawdown also may be according to water use and aquifer characteristics	Not specified / unknown	Not specified	Understanding scientifically established relationships	 GDEs, SW-GW connectivity, GW quality degradation 	Risk assessments: identify water uses, assign values and prioritise	RCL not specified, groundwater use not specified
Australia Australia-wide	Water allocation systems: exploring opportunities for reform	Barma Water 2011 Resources Pty Ltd, Arche Consulting, Vanessa O'Koefe, Bruce Fitzgerald, Paul Harding, Paul Wettin, Clarke Ballard, Derek Everson, Lin Crase	Waterlines Report Non-Tech Series No 65	nical MDBA0050	Not specified	Not specified	Not specified	Not specified	Urban, domestic, stock, industrial, mining, agricultural	Renewable (younger water; recharge occurring)	Not applicable Not spec unknowr	ified / Reasonably defined	 GW-SW connectivity, dependent ecosystems, groundwater levels and quality 	Not specified / unknown	GDEs not identified	Cultural flows incorporated in Plan	trigger levels / temporary reductions	Impacts on planned environmental water triggers	Not specified / unknown	Not specified	Understanding i scientifically established relationships	 GDEs, SW-GW connectivity, GW quality degradation 		RCL not specified, mechanism derivation not specified, groundwater monitoring not specified,
Australia Australia-wide	Framework for assessing potential local and cumulative effects of minim on groundwater resources project summary report	SKM, 2011 Sustainable g Minerals - Institute, Paul Howe, NWC	Waterlines Report Non-Tech Series No 59	nical MDBA0051	Not specified	Not specified	Not specified	Not specified	Mining, industry, utilities	Not specified / unknown	Not specified / Not spec unknown unknown	ified / Limited definition	Not specified	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	Not specified	Not specified / unknown	Hydrogeological integrity impact	Cumulative Impact Assessment Tool (CIAT)-assess risk or impact to groundwater and users	RCL not specified, management mechanisms not specified
Australia Australia-wide	National framework for integrated management of connected groundwater an surface water systems	SKM, NWC 2011 d	Waterlines Report Non-Tech Series No 57	nical MDBA0052	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified / unknown	Connected Not spec unknown	ified / Reasonably defined	GW-SW connectivity, GDEs	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Reduced seasonal water allocation determinations or buy-out entitlements	Not specified / unknown	Not specified	Understanding scientifically established relationships	f GDEs, SW-GW connectivity, GW quality degradation		RCL not specified, mechanism derivation not specified
Australia Australia-wide	A framework for managing and developing groundwate trading	GHD, Hamstead 2011 er Consulting, Vanessa O'Keefe, NWC	Waterlines Report Non-Tech Series No 52	nical MDBA0053	Not specified	Not specified	Not specified	Not specified	Stock, domestic	Not specified / unknown	Not applicable Not spec unknowr	ified / Reasonably defined	GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water trading (within the management area)	Based on a number of rules depending on system and states	Non-technical means (nominally adopted)	Not specified	Detailed scientil study	ic GDEs, SW-GW connectivity, GW quality degradation		RCL not specified, specific groundwater use not specified
Australia Australia-wide	Robust policy design for managed aquifer recharge	John Ward, 2011 Peter Dillon, NWC	Waterlines Report Non-Tech Series No 38	nical MDBA0054	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified / unknown	Not specified / Over Alle unknown	cated Reasonably defined	/ Environmenta flows, baseflows	al Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	water trading (within the management area)	Transfer of recovery entitlements or allocations to invest in recharge as an alternative or in conjunction with reducing consumption	Non-technical means (nominally adopted)	Not specified	Not specified / unknown	GDEs, SW-GW connectivity, GW quality degradation		RCL not specified, groundwater use not specified
Australia Australia-wide	Improving environmental sustainability in water planning	Mark Hamstead, 2009 Hamstead Consulting Pty Ltd, NWC	Waterlines Report Non-Tech Series No 20	nical MDBA0055	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified / unknown	Not specified / Over Alle unknown	cated Reasonably defined	Environmenta assets, GDEs	al Yes, s groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	not specified	not specified	Not specified / unknown	Not specified	Not specified / unknown	Impact to GDEs		Mechanism not specified, RCL not specified, groundwater use not specified
Australia Australia-wide	Water allocation planning i Australia- Current practices and lessons learned	n Mark Hamstead, 2008 s Claudia Baldwin, Vanessa O'Keefe	Waterlines Report Non-Tech	nical MDBA0056	Not specified	Not specified	Not specified	Not specified	Agriculture	Not specified / unknown	Not applicable Not spec unknowr	ified / Reasonably defined	GDEs, GW- SW connectivity, environmental flows	Yes, groundwater monitored al periodically	Yes; monitoring status unknown	Cultural flows	water trading (within the management area)	Local catchmert managemert authorities engage in water trade and purchase on behalf of the environment	Not specified / unknown	Not specified	Detailed scientil study	ic GDEs, SW-GW connectivity, GW quality degradation	Risk assessment including traffic light assessment, sustainability assessment, FLOWs method, time series models	RCL not specified, mechanism derivation not specified
Australia Australia-wide	Effects of the changes in water availability on Indigenous people of the Murray-Darling Basin: a scoping study	Sue Jackson, 2010 Brad Moggridge and Cathy Robinson	Non-Tech	nical MDBA0087	Murray Darling Basin	Not specified																		Groundwater allocations are not covered in detail, only mentioned in passing that commercial licences to Aboriginal people would be of value
Australia Murray Darling Basin	The proposed Groundwate Baseline and Sustainable Diversion Limits: Methods report	r MDBA 2012	MDBA publication Non-Techi no: 16/12	nical MDBA0001	Murray Darling Basin	Several - regional plan	Several - regional plan	Shallow groundwater (<200m bgl) e.ç stock/domestic productive use	irrigation, agriculture, stock, domestic, g. industrial, mining	Renewable (younger water; recharge occurring)	Connected Over Alle	Cated Well define (based on numeric model)	d protecting and restoring ecological values and water- dependent ecosystems	d Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	• aquiler integrity; • GDEs; • SW-GW connectivity; • GW salinity	Detailed scientific study	not specified	Detailed scientii study	c Not specified/identified	The Authority has used a consistent approach across the Basin in assessing the risk of groundwater extraction.	



																										Clarification / Verification Requirements of
Location information			Report Referen	ace Document	GHD	Groundwater			Amifer denth /	What are the main uses of groundwater this management	in GW	n I.SW I.e	evel of	Level of knowledge of	What are the key environmental priorities	Is a groundwater monitoring program in	Are potential GDEs	Are Cultural Flow values	Mechanism	Management Mechanisms	How are these	Resource Condition Limit (RCL	How was the R(2	Rick	Jurisdictions
Country State/Region Australia Murray Darling Basin	Document Title The groundwater SDL methodology for the Murray Darling Basin Plan	Author Date CSIRO and SKM 2011	No.	Type Technical	Number MDBA0059	Basin Murray Darling Basin	Kind of Aquifer Several - regional plan	Aquifer Name Several - regional plan	Not specified	area? Stock, domestic	Renewable? Cor Renewable Cor (younger water; recharge occurring)	inectivity? De nnected Nc un	evelopment? evelopment? nknown	Well defined (based on numeric model)	GDEs, GW- SW connectivity, aquifer integrity (land subsidence and aquifer compaction), groundwater salinity	No program. Groundwater monitoring y network in place	identified? Yes; monitoring status unknown	Cultural flows not considered/mentioned	drawdown limit	Mechanism Descriptions Its resource condition indicator (RCI) that reflects key constraints and is of dire relevance to most impacts (GDEs, SW, subsidence)	ct Not specified / unknown	What is the RCL? A number of RCL principles are explained on pg.13 of the document	Detailed scientifi study	Consequery Consectivity, GW quality degradation	RRAM: Uses key environmental assett ecosystem functions productive base and environmental outcomes. Assigns a sustainability factor	groundwater monitoring not specified, specific use of groundwater is not known, derivation of mechanism not specified
Australia Murray Darling Basin	Dryland diffuse groundwate recharge modelling across the Murray-Darling Basin	r CSIRO 2010	1835-095X	Technical	MDBA0060	Murray Darling Basin	Several - regional plan	Several - regional plan	Not specified	Not specified	Renewable Cor (younger water; recharge occurring)	nnected No un	ot specified / nknown	Well defined (based on numeric model)	GW-SW connectivity, vegetation, climate	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	Not specified	Not specified / unknown	impact to river baseflows		Specific use of groundwater is not covered, RCL not specified, groundwater monitoring not specified, management mechanisms not identified, no specific risks mentioned
Australia Murray Darling Basin	Peer Review of the Lower Gwydir Numerical Groundwater Model	J.R. Hillier, W. 2010 Timms, and N.P. Merrick	HC2010/18	Technical	MDBA0068	Murray Darling Basin	Alluvium (alluvial valley)	Narrabri Formation and Gunnedah Formation	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Renewable Coi (younger water; recharge occurring)	nnected Ov	ver Allocated	Well defined (based on numeric model)	sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Groundwater levels at all RCI sites must remain above confined aquilers, maintenance of current baseflow, stabilisation of groundwater levels, stabilisation of extraction	Detailed scientific study	24,000 ML/yr	Detailed scientif study	ic Hydrogeological integrity impact	Risk to dewatering confined aquifers, ris around uncertainty ir the model	groundwater use not specified k
Australia Murray Darling Basin	Peer Review of the Lower Lachlan Numerical Groundwater Model	N.P. Merrick, 2010 D.R. Woolley and W. Timms	HC2010/3	Technical	MDBA0069	Murray Darling Basin	Not specified	Lower Lachlan Aquifer system	Not specified	not specified	Non-renewable Nor (fossil water. Usually confined or semi-confined)	n-connected Ov	ver Allocated	Well defined (based on numeric model)	sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels,	Detailed scientific study	35 GL/yr	Detailed scientifi study	ic Hydrogeological integrity impact	Depletion to groundwater storage	groundwater use not specified s
Australia Murray Darling Basin	Peer Review of the Lower Macquarie Numerical Groundwater Model	J.R. Hillier, D.R. 2010 Woolley and N.P. Merrick	HC2010/21	Technical	MDBA0070	Murray Darling Basin	Several - regional plan	Lower Macquarie model	Not specified	Stock, domestic, municipal	Renewable Cor (younger water; recharge occurring)	nnected Ov	ver Allocated	Well defined (based on numeric model)	sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, stabilisation of extraction, prevention of dewatering of confined aquifers, maintenance of current environmental flow	Detailed scientific rs study	28 GL/yr	Detailed scientif study	ic Hydrogeological integrity impact		Risk not specified
Australia Murray Darling Basin	Peer Review of the Lower Murrumbidgee Numerical Groundwater Model	N.P. Merrick, 2010 D.R. Woolley and W. Timms	HC2010/24	Technical	MDBA0071	Murray Darling Basin	Several - regional plan	Shepparton, Calivil and Renmark Formation	Not specified	Stock, domestic, irrigation	Renewable Coi (younger water; recharge occurring)	nnected Ov	ver Allocated	Well defined (based on numeric model)	sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, stabilisation of extraction, prevention of dewatering of confined aquifers, maintenance of current environmental flow	Detailed scientific /s study	295 GLlyr	Detailed scientif study	ic Hydrogeological integrity impact	Groundwater salinisation, surface settlement due to groundwater extraction and consolidation of aquitards	
Australia ACT	Water Resources (Water management areas) Determination 2007 (No 1)	ACT government 2007		Non-Technica	i MDBA0002	all within ACT	Several - regional plan	Several - regional plan	Not specified	not specified	Not specified / Not unknown	tapplicable No un	ot specified / nknown	Not demonstrated		Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Not specified/identified	aquitarau	* Level of development not specified * RCL not specified
Australia ACT	Water Resources (Amount of water reasonable for use guidelines) Determination 2007 (No 1)	ACT government 2007	DI2007—194	Resource Management Plan	MDBA0003	all within ACT	Not specified	N/A	Not specified	not specified. Does r discern between surface and groundwater	not Not specified / Not unknown	tapplicable No un	ot specified / nknown	Not demonstrated	minimise wate wastage	r Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Not specified/identified	document focuses or water wastage as a risk/driver.	* Level of development not specified * RCL not specified
Australia ACT	Water Resources (Water available from areas) Determination 2007 (No 1)	ACT government 2007	Di2007—191	Resource Management Plan	MDBA0004	all within ACT	Several - regional plan	Several - regional plan	Not specified	not specified	Not specified / Not unknown unk	t specified / Be mown Lir	elow Allocated imit	Not demonstrated	not specified	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Not specified/identified	document simply provides a table showing "maximum GW and SW available for taking". Not clear whether these are RCLs or total volumes available	* RCL not specified
Australia ACT	Sustainable Extraction Lim Derived from the Recharge Risk Assessment Method - Australian Capital Territory	ts CSIRO and SKM 2010	1835-095X	Technical	MDBA0061	all within ACT	Several - regional plan	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Stock, domestic	Renewable Co (younger water; recharge occurring)	nnected W All	/ell below llocated Limit	Well defined (based on numeric model)	No key environmental assets identified, high risk to ecosystem function (GW- SW connectivity)	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Detailed scientifi study	ic impact to river baseflows	Uses risk matrix to assess risk with respect to key environmental assett key ecosystem function, productive base and key environmental outcomes	* RCL not specified
Australia New South Wales	Water Sharing Plan for the NSW Murray Darling Basis Porous Rock Groundwater Sources 2011	NSW 2011 Government		Resource Management Plan	MDBA0018	Murray Darling Basin	Porous rock	(a) Gurnedah – Oxley Basin MDB Groundwater Source, (b) Daklands Basin Groundwa Source, (c) Sydney Basin MDB Groundwater Source, and (d) Western Murray Porous Ro Groundwater Source	Not specified ter ock	not specified	Not specified / Cor unknown	nnected Nc	ot specified /	Not demonstrated	protecting groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 400 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to an access licence, (b) 100 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to bar landholder rights, (c) 200 metres from the boundary of the land, on which the water supply work is locative source pursuant to the same groundwater source pursuant to bar same groundwater source pursuant, to as same groundwater source pursuant, (c) 200 metres of a NSW Office of Water observation or monitoring bore.	Not specified / unknown	nd specified	Not specified / unknown	Interference impactor	is	 RCL derivation not specified; assumed
Australia New South Wales	Water Sharing Plan for the Intersecting Streams Unregulated and Alluvial Water Sources 2011	NSW 2011 Government		Resource Management Plan	MDBA0019	Murray Darling Basin	Alluvium (alluvial valley)	Warrego Alluvial Groundwater Source, and Paroo Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Co (younger water; recharge occurring)	nnected No un	ot specified / /known	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 200 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to an access licence, (b) 200 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to bat landholder rights, (c) 100 metres from the boundary of the land, on which the water supply work is located, (d) 500 metres of a water supply work authorised to take water from the same groundwater source by a local water utility or a major utility, or (e) 100 metres of a NW Office of Water observation or monitoring bore.	Not specified / unknown	not specified	Not specified / unknown	Interference impact to existing users	ts no specific risks mentioned	* RCL derivation not specified; assumed
Australia New South Wales	Water Sharing Plan for the Intersecting Streams Unregulated and Alluvial Water Sources 2011	NSW 2011 Government		Resource Management Plan	MDBA0019	Murray Darling Basin	Alluvium (alluvial valley)	Warrego Alluvial Groundwater Source, and Paroo Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Renewable Co (younger water; recharge occurring)	nnected Nc un	ot specified /	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 5, (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 6, unless the Minister is satisfied or the source listed in Schedule 6, unless the Minister is the plume, or (c) at a distance that is more than 500 metres from the plume, or (c) at a distance that is more than 500 metres from the plume, associated with a contamination source listed in Schedule 6, at greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater qualit	y	* RCL derivation not specified; assumed
Australia New South Wales	Water Sharing Plan for the Intersecting Streams Unregulated and Alluvial Water Sources 2011	NSW 2011 Government		Resource Management Plan	MDBA0019	Murray Darling Basin	Alluvium (alluvial valley)	Warrego Alluvial Groundwater Source, and Paroo Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Renewable Coi (younger water; recharge occurring)	nnected No un	ot specified / nknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	>2,000 metres of a high priority GDE	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		* RCL derivation not specified; assumed
Australia New South Wales	Water Sharing Plan for the Lower Murray-Darling Unregulated and Alluvial Water Sources 2012	NSW 2011 Government		Resource Management Plan	MDBA0020	Murray Darling Basin	Alluvium (alluvial valley)	Lower Darling Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Renewable Cor (younger water; recharge occurring)	nnected No un	ot specified / nknown	Not demonstrated	protecting groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	water quality indicators	limits on water take (mechanisms) to not exceed an extraction concentratio tevel	n Not specified / unknown	Electrical Conductivity = >3000 uS/cm	Understanding o scientifically established relationships	of Degradation of groundwater qualit	y	* RCL derivation not specified. * groundwater use not specified
Australia New South Wales	Water Sharing Plan for the Barwon-Darling Unregulate and Alluvial Water Sources 2012	NSW 2012 d Government		Resource Management Plan	MDBA0021	Murray Darling Basin	Alluvium (alluvial valley)	Upper Darting Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Renewable Cor (younger water; recharge occurring)	nnected Nc	ot specified / nknown	Not demonstrated	protecting groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 200 m d a water supply work located on another landhölding that is authorised to take water from the same water source and is nominated by another access licence. (b) 200 m d a water supply work located on another landhölding that is authorised to take water from the same water source pursuant to basic landhölder nights only. (c) 100 m from the boundary of the landhölding on which the water supply work located on another landhölder nights only. (c) 100 m for a water supply work located to take water from the same water source and is nominated by a local water utility access licence, or (e) 100 m for a Department observation or monitoring bore.	Not specified / unknown	not specified	Not specified / unknown	Interference impactor	ts	* groundwater use not specified



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Location Information		Depart	. Reference . Desument	GHD	Coundaria			A quifer depth (What are the main uses of groundwater in		I musi of	Level of knowledge of	What are the key of environmenta	Is a groundwater al monitoring	Are potential	Are Cultural Flow unline	Hechoniam	management mechanisms	Liou en these	Resource Condition Limit (RCL)	Here was the DC			Jurisdictions
Country State/Region Australia New South Wales	Document Title Author Water Sharing Plan for the NSW Barwon-Darling Unregulated Government and Alluvial Water Sources 2012	Date No. 2012	Reference Document Type Resource Management Plan	Number MDBA0021	Groundwater Basin Murray Darling Basin	Kind of Aquifer Alluvium (alluvial valley)	Aquifer Name Upper Darling Alluvial Groundwater Source	Aquiter depth / interval Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	this management area? not specified	Renewable? connectivit Renewable Connectivit (younger water; recharge occurring)	Level ot Pevelopmer Not specifie unknown	system behaviour d / Not demonstrate	pnonties identified? protecting d groundwater dependent ecosystems	program in place? Not specified / unknown	GDEs identified? / Yes; monitoring status unknown	Are Cultural How values an issue? Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Mechanism Datoripations Restrictions of new water supply works: (a) within 100 metres of a high priority groundwater dependent eccesystem listed in Schedule 6 in the case of a water supply work that will be authorise to take water prusuant to basic indended in rights only, (b) within 200 metres of a high priority groundwater dependent eccesystem listed in Schedule 6 in the case of a water supply work that will be nominate by an access licence, or (c) within 40 metres of the top of the high bank of a river.	How are these mechanisms derived Not specified / unknown d	What is the RCL? not specified	How was the RCI derived? Not specified / unknown	Conceptly Risk	Descriptions	* groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Barwon-Darling Unregulated Government and Alluvial Water Sources 2012	2012	Resource Management Plan	MDBA0021	Murray Darling Basin	Alluvium (alluvial valley)	Upper Darling Alluvial Groundwater Source	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specifie unknown	d / Not demonstrate	protecting d groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 5, or (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 5, unless the Minister is astifiated that no drawdown of water will occur within 250 metres of that plume.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality		* groundwater use not specified
Australia New South Wales	Water Sharing for the Lower NSW Murray Groundwater Source Government	2011	Resource Management Plan	MDBA0022	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	I Not specifie unknown	d / Not demonstrate	protecting d groundwater dependent ecosystems	Not specified / unknown	/ Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d trigger levels temporary reductions	/ cl 41: application of local access rules (the mechanism) once piezometric level in key bores (the RCI) declines more than listed amounts	Understanding of scientifically established relationships	Groundwater level RCL: Year of Plan: Metres dacline trigger level 1 = 5.4 m 3 = 6.7 m 4 = 7.3 m 5 = 7.8 m 6 = 8.3 m 7 = 8.7 m 8 = 9.1 m 9 = 9.5 m	Not specified / unknown	Impact to GDEs		* groundwater use not specified
Australia New South Wales	Water Sharing for the Lower NSW Murray Groundwater Source Government	2011	Resource Management Plan	MDBA0022	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	I Not specifie unknown	d / Not demonstrate	protecting d groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d trigger levels temporary reductions	/ cl 42: application of local access rules (mechanism) based on salinity trigger levels	Understanding of scientifically established relationships	If salinity in a production bore (RCI) exceeds 650 EC or increases more than 20% or 500 EC.	Not specified / unknown	Degradation of groundwater quality		* groundwater use not specified
Australia New South Wales	Water Sharing for the Lower NSW Murray Groundwater Source Government	2011	Resource Management Plan	MDBA0022	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specifie unknown	d / Not demonstrate	protecting groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d trigger levels temporary reductions	/ cl 43 application of local access rules if land subsidence identified	Understanding of scientifically established relationships	Evidence of land subsidence	Not specified / unknown	Hydrogeological integrity impact		* groundwater use not specified
Australia New South Wales	Water Sharing for the Lower NSW Murray Groundwater Source Government	2011	Resource Management Plan	MDBA0022	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specifie unknown	d / Not demonstrate	protecting groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	s Extraction not within 200m proximity of GDE or 20m of rivers	Understanding of scientifically established relationships	not specified	Not specified / unknown	Hydrogeological integrity impact		* groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lower Murray Shallow Government Groundwater Source 2012	2012	Resource Management Plan	MDBA0023	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	stock and domestic	Renewable Connected (younger water; recharge occurring)	Not specifie unknown	d / Not demonstrate	protecting groundwater dependent ecosystems	Not specified / unknown	/ Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedula 2, (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 2, unless the Minster is assided the no drawdown of water will occur within 250 metres for that plume, or (c) at a distance that is more than 500 metres form the plume associated with a contamination source listed in Schedule 2, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of no s groundwater quality men	ecific risks ioned	
Australia New South Wales	Water Sharing Plan for the NSW Government Groundwater Source 2012	2012	Resource Management Plan	MDBA0023	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	 Shallow groundwater (-200m bgl e.g.) stock/domestic productive use 	stock and domestic	Renewable Connected (younger water, recharge accurring)	I Not specifie	d / Not demonstrate	protecting id groundwater dependent ecosystems	Not specified / unknown	Yes; monitoring status unknown unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Restrictions of new water supply works: (a) within 100 meters of a high priority groundwater dependent ecosystem listed in Schedule 3 in the case of a water supply work used oxiely to take water pursuant to basic landholder rights, (b) within 200 metres of a high priority groundwater dependent ecosystem listed in Schedule 3 in the case of a water supply work not used solely to tak water pursuant to basic landholder rights, (c) at a distance that is more than 200 metres from a high priority groundwater dependent baits in one than 200 metres from a high priority groundwater dependent baits in one than 200 metres from a high priority groundwater dependent baits in one than 200 metres from a high priority groundwater dependent water supply work in the landholder rights, the Minister is sudisfield that the water supply work is likely to case more than minimal drawdown at the perimeter of any high priority groundwater dependent ecosystem listed in Schedule 3, or (d) within 100 metres of a groundwater dependent culturally significant site in the case of a water supply work new dos/ley to take water pursuant to basic landholder rights, or (b) 200 metres of a groundwater dependent culturally significant site in the casholder sights, or (b) 200 metres of a groundwater dependent culturally significant site in the culturally take.	Not specified / unknown e	not specified	Not specified / unknown	Impact to GDEs no a meri	ecific risks ioned	
Australia New South Wales	Water Sharing Plan for the NSW Lover Murray Shallow Government Groundwater Source 2012	2012	Resource Management Plan	MDBA0023	Murray Darling Basin	Alluvium (shallow)	All alluvial sediments to a dep of 12 metres	th Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	stock and domestic	Renewable Connected (younger water, recharge occurring)	Not specifie	d / Not demonstrate	protecting d groundwater dependent ecceystems	Not specified / unknown	/ Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	s (a) 400 metres of a water supply work located on another landholding that is authorised to take water from the same groundwater source pursuant to an access licence, (b) 400 metres of a water supply work located on another landholding that is subtorised to take water from the same groundwater source pursuant to basi landholder rights, (c) 200 metres from the boundary of the land on which the water supply work constrolers from the boundary of the land on which the water supply work constrolers of the boundary by work pursoined to take water from the same groundwater source pursuant to take and there of a water supply work authorized to take water from the same groundwater source by a local water utility, unless the local water utilit has provided consent in writing, (c) 200 metres of a water supply once authorized to take water there is a water supply of Water observation or monitoring bore, unless the functioner has provided consent in writing, (c) 200 metres of a mater supplied consent in writing, or (f) 100 metres of an aver supplied consent in writing,	Not specified / unknown c k y	not specified	Not specified / unknown	Interference impacts no se to existing users men	ecific risks ioned	
Australia New South Wales	Water Sharing Plan for the NSW Murray Unregulated and Government Altuvial Water Sources 2011	2011	Resource Management Plan	MDBA0024	Murray Darling Basin	Alluvium (shallow)	Upper Murray Groundwater Source	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	stock and domestic	Renewable Connected (younger water; recharge accurring)	I Not specifie unknown	d / Not demonstrate	protecting d groundwater dependent ecosystems	Not specified / unknown	/ Yes; monitoring status unknown	Cultural flows not considered/mentioned	distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 3, (b) between 250 and 500 metre of the plume associated with a contamination source listed in Schedule 3, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of the plume, or (c) a a distance that is more than 500 metres from the plume associated with a contamination source listed in Schedule 3, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of no s groundwater quality men	ecific risks ioned	
Australia New South Wales	Water Sharing Plan for the NSW Murray Unregulated and Government Alluvial Water Sources 2011	2011	Resource Management Plan	MDBA0024	Murray Darling Basin	Alluvium (shallow)	Upper Murray Groundwater Source	Shallow groundwater (<200m bg) e.g. stock/domestic productive use	stock and domestic	Renewable Connected (younger water, recharge occurring)	Ndt specifie	d / Not demonstrate	protecting d groundwater dependent ecceystems	Not specified unknown	/ Yes: monôtring status unknown	Cultural flows not considered/mentioned	distance rules for bores	a (a) within 100 metres of a high priority groundwater dependent ecceystem listed in Schedule 4 in the case of a water supply work used solely to take water pursuent to basic landholder rights, (b) at a distance that is more than 100 metres from a high priority groundwater dependent eccosystem listed in Schedule 4, in the case of a wort used solely to take water pursuant to basic landholder rights, if a greater distance is determined by the Minister to be necessary to protect the high priority groundwater dependent eccosystem listed in Schedule 4, (c) within 200 metres of a high priority groundwater dependent eccosystem listed in Schedule 4 in the case of a water supply work not used solely to tak water pursuant to basic landholder rights, (d) at a distance that is more than 200 metres from a high priority groundwater dependent eccosystem listed in Schedule 4, in the case of a wort distance is determined by the Minister to be necessary to protect the high priority groundwater dependent couprets listed in Schedule 4, or (e) within 40 metres of the top of the high bank of a river. (a) 100 metres of a groundwater dependent culturally significant site, in the case of a water supply work not used solely to take water pursuant to basic landholder rights, or (b) 200 metres of a groundwater dependent culturally significant site, in the case of a water supply work not used solely to take water pursuant to basic landholder rights.	Not specified / unknown k e k	not specified	Not specified / unknown	Impact to GDEs no s men	ecific risks	

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Location information							Cor	ntextual information								Management Mechanisms		Resource Condition Limit (RCL)		Risk		Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title Author	Report Reference Document Date No. Type	GHD Catalogue Groun Number Basin	ndwater Kind of Aquifer	Aquifer Name	What uses Aquifer depth / this n interval area?	at are the main s of groundwater in management s?	GW-SW Renewable? connectivity?	Level of Development?	Level of knowledge of system behaviour	What are the ls key g environmental m priorities p identified? pl	s a roundwater An nonitoring po rogram in GE lace? ide	e tential DEs Ar Intified? an	re Cultural Flow values Meo n issue? Typ	chanism xe	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?	How was the RC derived?	L Category Risk (lescriptions	
Australia New South Wales	Water Sharing Plan for the NSW Murray Urnegulated and Government Alluvial Water Sources 2011	2011 Resource Management Plan	MDBA0024 Murray Basin	y Darling Alluvium (shallow)	Upper Marray Groundwater Source	Shallow stock groundwate (<200m bgl) e.g. stock/idomestic productive use	k and domestic	Renewable Connected (younger water; recharge occurring)	Nat specified / unknown	Not demonstrated	protecting N groundwater u dependent ecosystems	kot specified / Ye nknown m sta un	s; CL nitoring co tus known	ultural flows not dist	tance rules bores	(a) 1000 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to another access licence, (b) 400 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to basis landholder rights, (c) 500 metres from the boundary of the land on which the water supply work is located, unless the owner of the land adjoining the boundary has provided consent in writing. (c) 1000 metres of a water supply work authorised to take water from the same vater source by a local water utility or a major utility, unless the local water utility or mignification or monitoring born, unless the Minister has provided consent in writing.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts no sp to existing users menti	icific risks	
Australia New South Wales	Water Sharing Plan for the NSW Murrumbidge Unregulated Government and Alluvial Water Sources 2012	2011 Resource Management Plan	MDBA0025 Murra Basin	y Darlíng Alkuvium (alkuviał basin)	Murumbidge Alluvial Groundwater Sources, Including (1) Billabong Creek Alluvial GW Source, (1) Bundgati Alluvial GW Source, (1) Gundgati Alluvial GW Source, (2) Med Murumbidgee Zone 3 Alluvial GW Source (1) Waga Wagga Alluvial GW Source.	Shallow stock : groundwate (<200m bgl) e.g. stock/domestic productive use	k and domestic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting N N groundwater u dependent ecosystems	kot specified / Ye niknown mt sta un	s; CL nitoring bu tus Pl known	ultural flows mentioned dist. In chi norporated in for b fan	ance rules bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 6, or (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 6, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of that plume.	Not specified / unknown	not specified	Not specified / unknown	Degradation of no sp groundwater quality menti	icific risks	
Australia New South Wales	Water Scharing Plan for the NSW Murrumbidgee Uringylated Government and Alliuvial Water Sources 2012	2012 Resource Management Plan	MDBA0025 Murray Basin	y Darling Alluvium (alluvial basin)	Mirrumbidge Alluvial Groundwater Sources, including Oli Billabong Creek Alluvial GW Source, (iii) Bungendore Alluvial GW Source, (iii) Gundgaja Alluvial GW Source, (v) Med Mirrumbidgee Zone 3 Alluvial GW Source (v) Wagga Alluga Alluvial GW Source.	Shallow stock groundwater (<200m bg) e.g. stock/domestic productive use	k and domestic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting N groundwater u dependent ecosystems	kot specified / Ye nknown m sta un	s; Cu nitoring bu tus Pli known	ultural flows mentioned dist at not incorporated in for b	iance rules bores	(a) within 100 metres of a high priority groundwater dependent ecceystem listed in Schedule 7 in the case of a water supply work that will be authorise to take water pursuant to basic landholder rights only (a) (b) within 200 metres of a high priority groundwater dependent ecceystem listed in Schedule 7 in the case of a water supply work that will be nominater by an access licence, (c) within 40 metres of the top of the high bank of a river. (a) 100 metres of a groundwater dependent culturally significant site, in the case of a water supply work that will be authorised to take water pursuant to basic landholder rights only, or (b) 200 metres of a groundwater dependent culturally significant site, in the case of a water supply work that will be nominated by an access licence.	Not specified / d unknown	not specified	Not specified / unknown	Impact to GDEs no sp ment	icific risks	
Australia New South Wales	Water Sharing Flan for the NSW Marumbridge Unngulated and Alluvial Water Sources 2012	2012 Resource Management Plan	MDBA0025 Murra Basin	y Darling Alluvium (alluvial basin)	Murumbidges Alluvial Grundwater Sources, Including (1) Billaborg Creek Alluvial GW Source, (10) Bundgati Alluvial GW Source, (10) Grundgati Alluvial GW Source, (10) Kyeamba Alluvial GW Source, (10) Kyeamba Alluvial GW Source, (10) Wagga Wagga Alluvial GW Source,	Shalow stack groundwater (<200m hol) e.g. stock/domesic productive use	k and domestic	Renewable Connected (younger water; recharge occurring)	Nor specified / unknown	Limited definition	protecting M groundwater u dependent ecceystems	let specified / Ye	s; Cr nitoring bu tus Pi known	ultural flows mentioned dist un no incorporated in for b	ance rules bores	(e) 500 metres of a water supply work located on another landholding that is authorized to take water from the same water source and is nominated by another access locance, (b) 500 metres of a water supply work located on another landholding that is authorized to take water from the same water source pursuant to basic landholdir rights only. (c) 250 metres from the boundary of the landholding and principal source of the landholding and the water source pursuant to basic landholder rights only. (c) 500 metres from the boundary of the landholding adoining the boundary has provided consent in writing. (d) 500 metres of a water supply work located on another landholding the source of a landholder right water from the same water source and landholder rights and the source of a landholder right work located on another landholding that is authorized to take water from the same water source and is nominated by another access licence, uses the water source and is another landholding that is authorized to take water from the same water source and is nominated by another access licence, uses the water source pursuant to basic (c) 200 metres of a water supply work located on another landholding that is authorized to take water from the same water source pursuant to basic (c) 200 metres of a water supply work located on another landholding that is authorized to take water from the same water source and is nominated by another source supply work located on another landholding that is authorized to take water from the same water source and is nominated by another source and is nominated by another source and is nominated by another source and is nominated by a source and is nominated by another source and is nominated by another source and is nominated by another source and is nominate another source and is nominate by another water rightly access lic	Not specified / unknown	not specified	Net specified /	Interference impacts no sp to existing users menti	edife risks	
Australia New South Wales	Wate Sharing Plan for the NSW Lower Murrumbidgee Groundwater Sources 2003	2006 Resource Management Plan	MDBA0026 Murraj Basin	y Darling Alluvium (alluvial basin)	Lower Murrumbidgee Shallow Groundwater Source (Shepparton Formation); and the Lower Murrumbidgee Deep Groundwater Source (Calivil and Renmark Formations)	Deep not s groundwater inclu e (>200 m bgl) dome	specified but udes stock and lestic	Renewable Connected (younger water; recharge occurring)	Nat specified / unknown	Limited definition	protecting N groundwater u dependent ecosystems, climate adjusted groundwater levels, degradation of groundwater	kat specified / Ye inknown ma sta un	s; CL nnitoring bu tus Pl: known	ultural flows mentioned zon ut not incorporated in entit lan	al limits on itlements	Extraction not within 200m proximity of GDEs	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		* RCL derivation not specified groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lower Murrumbidgee Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0026 Murray Basin	y Darling Alluvium (alluvial basin)	Lower Murrumbidgee Shallow Groundwater Source (Sheppaton Formation); and the Lower Murrumbidgee Deep Groundwater Source (Caliwil and Renmark Formations)	Deep not s groundwater inclui e (>200 m bgl) dome	specified but udes stock and lestic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	quality protecting N groundwater u dependent ecosystems, climate adjusted groundwater levels, degradation of groundwater quality	kat specified / Ye inknown mo sta un	s; CL mitoring bu tus Pli known	ultural flows mentioned trigg ut not incorporated in tem Ian redu	ger levels / porary uctions	local access rules it land subsidence identified	Not specified / unknown	Evidence of land subsidence	Not specified / unknown	Hydrogeological no sp integrity impact menti	cific risks	* RCL derivation not detailed local access rules not defined * groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lower Murrunbidgee Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0026 Murray Basin	y Darling Alluvium (alluvial basin)	Lover Murrumbidgee Shallow Groundwate Source (Shapparton Formation); and the Lower Murrumbidgee Deep Groundwater Source (Calivil and Renmark Formations)	Deep not s groundwater inclue (>200 m bgl) dome	specified but udes stock and nestic	Renewable Connected (younger water; recharge occurring)	Nat specified / unknown	Limited definition	protecting N groundwater dependent eccsystems, climate adjusted groundwater levels, degradation of groundwater quality	kot specified / Ye inknown mo sta un	s; Cu mitoring bu tus Pli known	ultural flows mentioned trigg ut not incorporated in tem Ian redu	ger levels / iporary uctions	local access rules to protect water levels	Not specified / unknown	once contoured drawdown or recovery depths exceed trigger levels specified	Not specified / unknown	Not no sp specified/identified menti	icific risks	* RCL derivation not detailed risks not identified local access rules not defined groundwater use not specified
Australia New South Wales	Water Shaning Plan for the NSW Lower Murrunbidgee Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0026 Murray Basin	y Darling Alluvium (alluvial basin)	Lover Murrumbidgee Shallov Groundwater Source (Shapparton Formation); and the Lower Murrumbidgee Deep Groundwater Source (Calivil and Renmark Formations)	Deep not s groundwater inclue (>200 m bgl) dome	specified but udes stock and testic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting N groundwater dependent ecosystems, climate adjusted groundwater levels, degradation of groundwater quality	kot specified / Ye inknown mo sta un	s; Cu xnitoring bu tus Pli known	ultural flows mentioned wat ut not incorporated in indi	er quality icators	local access rules to protect water quality	Not specified / unknown	not specified	Not specified / unknown	Degradation of no sp groundwater quality menti	icific risks aned	RCL not specified local access rules not defined groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lower Murrumbidge Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0026 Murray Basin	y Darling Alluvium (alluvial basin)	Lower Murrumbidgee Shallow Groundwater Source (Shepparton Formation); and the Lower Murrumbidgee Deep Groundwater Source (Calivil and Renmark Formations)	Deep not s groundwater inclue (>200 m bgl) dome	specified but udes stock and testic	Renewable Connected (younger water; recharge occurring)	Nat specified / unknown	Limited definition	protecting N groundwater dependent ecosystems, climate adjusted groundwater levels, degradation of groundwater quality	kot specified / Ye inknown m sta un	s; CL xnitoring bu tus Pk known	ultural flows mentioned trigg ut not incorporated in tem Ian redu	ger levels / nporary uctions	local access rules for the temporary reduction of extraction limits	Not specified / unknown	3 year average extraction >5% of the extraction limit	Not specified / unknown	Hydrogeological no sp integrity impact menti	icific risks	RCL derivation not detailed ⁺ groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lachlan Unregulated and Government Alluvial Water Sources 2012	2012 Resource Management Plan	MDBA0027 Murray Basin	ıy Darling Alluvium (alluvial valley)	Upper Lachlan Alluvial Groundwater Source, and the Belubula Valley Alluvial Groundwater Source	Shallow not s groundwater (<200m bgl) e.g. stock/domestic productive use	specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting N groundwater u dependent ecosystems, GW-SW connectivity, Aboriginal heritage values	kot specified / Ye inknown mo sta un	s; Cu nitoring bu tus Pli known	ultural flows mentioned dista ut not incorporated in for b Ian	ance rules bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 3, or (b) between 250 metres and 350 metres of the plume associated with a contamination source listed in Schedule 3, unless the Minister is satisfied that no drawdownd or water will court within 250 metres of the plume associated with the contamination source.	Not specified / unknown	not specified	Not specified / unknown	Degradation of no sp groundwater quality menti	crific risks	* RCL derivation not detailed groundwater use not specified



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Location information								Contextual information							Management Menhanisme		Popouros Condition Linit (2011			Clarification / Verification Requirements of
Location mormation			GHD				What are the main uses of groundwater	in		Level of knowledge of	What are the Is a ground fervironmental monitor	dwater Are potential			management mechanisms		Resource Condition Limit (RCL)			JULISUICTIONS
Country State/Region Australia New South	Document Title Author Water Sharing Plan for the NSW	Report Reference Document Date No. Type 2012 Resource	Catalogue Number MDBA0027	Groundwater Basin Kind Murray Darling Alluv	d of Aquifer Ivium (alluvial valley)	Aquifer Name Upper Lachlan Alluvial	Aquifer depth / this management area? Shallow not specified	Renewable? Connective Renewable Connective	vity? Level of Development3 ad Not specified /	system behaviour / Limited	priorities progra identified? place? protecting Not sp	am in GDEs identified? becified / Yes;	Are Cultural Flow values an issue? Cultural flows mentioned	Mechanism Type distance rules	Mechanism Descriptions (a) within 200 metres of a high priority groundwater dependent ecosystem	How are these mechanisms derived Not specified /	What is the RCL? not specified	How was the RC derived? Not specified /	Category Risk Description	ks * RCL derivation not detailed
Wales	Lachian Unregulated and Government Alluvial Water Sources 2012	Management Plan	E	Basin		Groundwater Source, and the Belubtal Valley Alluvial Groundwater Source	groundwater (<200m bg) e.g. stock/domestic productive use	(younger water; recharge occurring)	unknown	definition	groundwater unknow dependent eccosystems, GW-SW connectivity, Aboriginal heritage values	win monitoring status unknown	but not incorporated in Plan	for bores	Isstel in Schedule 4 in the case of a water supply work that will be authorise to take water pursuant to basic landholder rights only. (b) within 200 metres of a high priority groundwater dependent ecceystem isstel in Schedule 4 in the case of a water supply work that will be nominate by an access licence. (c) within 100 metres of the edge of an escarpment, where the location of th water supply work is or is proposed to be above the escarpment, or (d) within 100 metres of the top of the high bank of a river.	id unknown id		unknown	. mentioned	* groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lachian Unregulated and Government Alluvial Water Sources 2012	2012 Resource Management Plan	MDBA0027 N	Murray Darling Allun Basin	vvium (alluvial valley)	Upper Lachtan Alluxial Groundwater Source, and the Belubula Valley Alluxial Groundwater Source	Shallow not specified groundwater (-200m bg)l e.g. stock/domestic productive use	Renewable Connecte (younge water, recharge occurring)	ad Not specified /	/ Limited definition	protecting Not sp groundwater unkno dependent ecceystems, GW-SW connectivity, Aboriginal heritage values	secified / Yes; wm monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 600 metres of a water supply work located on another landholding that is authorised to take water from the same water source and is nominated by another access locance, (b) 400 metres of a water supply work located on another landholding that is authorised to take water from the same water source pursuant to basic landholdin grings only. (c) 200 metres from the boundary of the landholding on which the water purply work located on another landholding that is authorised to take water from the same water source pursuant to basic landholding do the located. Unless the landholding adjoining the boundary has provided consent in writing. (c) 600 metres of a water source and is nominated by a local water utility access licence or a major childing cocess licence, unless the licence holder has provided consent in writing.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts no specific to existing users mentioned	ks * RCL derivation not detailed
Australia New South Wales	Water Sharing Plan for the NSW Lower Lachlan Groundwater Government Source 2003	2008 Resource Management Plan	MDBA0028 N E	Murray Darling Alluv Basin	ıvium (alluvial valley)	Lower Lachlan unconsolidated alluvial aquifers	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connects (younger water; recharge occurring)	ad Not specified / unknown	/ Limited definition	protecting Not sp groundwater dependent ecosystems, groundwater quality protection	vecified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	water quality indicators	Local access rules to protect water quality	Not specified / unknown	Salinity thresholds of 800 uS/cm EC for raw water for drinki supplies class, and 1,500 uS/cm EC for agricultural water class	ng Not specified / unknown	Degradation of no specific r groundwater quality mentioned	ks * groundwater use not specified * RCL derivation unknown
Australia New South Wales	Water Sharing Plan for the NSW Lower Lachlan Groundwater Government Source 2003	2008 Resource Management Plan	MDBA0028 N	Murray Darling Alluv Basin	uvium (alluvial valley)	Lower Lachlan unconsolidated alluvial aquifers	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified , unknown	/ Limited definition	protecting Not sp groundwater unknor dependent ecosystems, groundwater quality protection	vecified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	trigger levels / temporary reductions	local access rules to protect water levels	Not specified / unknown	water level recovery to within 20% of total available drawdov	vn Not specified / unknown	Hydrogeological no specific r integrity impact mentioned	iks * groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lover Lachlan Groundwater Government Source 2003	2008 Resource Management Plan	MDBA0028 N	Murray Darling Alluv Basin	uvium (alluvial valley)	Lower Lachlan unconsolidated alluvial aquifers	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified , unknown	/ Limited definition	protecting Not sp groundwater unknot dependent ecosystems, groundwater quality protection	becified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	trigger levels / temporary reductions	local access rules if land subsidence identified	Not specified / unknown	Evidence of land subsidence	Not specified / unknown	Hydrogeological no specific r integrity impact mentioned	iks * groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lover Lachlan Groundwater Government Source 2003	2011 Resource Management Plan	MDBA0028 N	Murray Darling Alluv Basin	ıvium (alluvial valley)	Lower Lachlan unconsolidated alluvial aquifers	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified / unknown	/ Limited definition	protecting Not sp groundwater unknot dependent ecosystems, groundwater quality protection	becified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) for works nominated by an access licence, within 200 metres of high priority groundwater dependent eccepsians, or where impact may occur on Aboriginal cultural heritage values, (b) for those exercising basic landholder rights, within 100 metres of high priority groundwater dependent eccepsians, or where impact may occur on Aboriginal cultural heritage values, and (c) within 40 metres of any river to any works.	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs no specific r mentioned	* groundwater use not specified * no specific risks mentioned * RCL derivation unknown
Australia New South Wales	Water Sharing Plan for the NSW Lower Lachlan Groundwater Government Source 2003	2008 Resource Management Plan	MDBA0028 N	Murray Darling Alluv Basin	ıvium (alluvial valley)	Lower Lachlan unconsolidated alluvial aquifers	Shallow not specified groundwater (<200m bgi) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	d Not specified / unknown	/ Limited definition	protecting Not sp groundwater dependent ecosystems, groundwater quality protection	ecified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 1,000 metres of another water supply work (bore) nominated by an access licence authorised to extract up to, and including, 10 ML/day, (b) 2,000 metres of another water supply work nominated by an access licence authorised to extract greater than 10 ML/day, and up to and includin 15 ML/day, and (c) 3,000 metres of another water supply work nominated by an access licence authorised to extract greater than 15 ML/day.	Not specified / unknown g	not specified	Not specified / unknown	Interference impacts no specific t to existing users mentioned	 * groundwater use not specified * RCL derivation unknown
Australia New South Wales	Water Sharing Flash for the NSW NSW Murray Desire glasm. Government Fractured Rock Groundwater Sources 2011	2011 Resource Management Plan	MDBA0029 E	Murray Darling Frac Basin	ctured rock	All aquides within the NSW Murray Darling Basin Fractured Rock Groundwater Sources	Shallow not specified groundwater (<200m bg)l e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified / unknown	/ Limited definition	protecting Not sp groundwater unkno dependent ecosystems, groundwater quality protection	oecified / Yes; wm monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 400 metres of a water supply work on another landholding that is subhorised to take water from the same groundwater source pursuant to an access licence. (b) 200 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to be landholder rights. (c) 200 metres from the boundary of the land, on which the water supply work is located, unless the owner of the land adjoining the boundary has prolided consent in writing. (d) 200 metres of a water supply local water using to a super supply local water using the local water utility unless the local water utility or major utility has provided consent in writing, of (e) 400 metres of a NSW Office of Water observation or monitoring bore, unless the Minister has provided consent in writing.	Not specified / unknown ic	not specified	Not specified / unknown	Interference impacts no specific to existing users mentioned	ks groundwater use not specified
Australia New South Wales	Wate Sharing Fies for the NSW NSW Murray Darling Basin Government Fractured Rock Groundwater Sources 2011	2011 Resource Management Plan	MDBA0029 N	Murray Darling Frac Basin	ctured rock	All aquifers within the NSW Murray Darling Basin Fractured Rock Groundwater Sources	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connects (younger water; recharge occurring)	ad Not specified / unknown	/ Limited definition	protecting Not sp groundwater unknot dependent ecosystems, groundwater quality protection	oecified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	Reatrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schodule 2, (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 2, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of that plume, or (c) at a distance that is more than 500 metres from the plume associated with a contamination source listed in Schedule 2, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of no specific groundwater quality mentioned	iks * groundwater use not specified * no specific risks mentioned
Australia New South Wales	Wate Sharing Plan for the NSW NSW Murray Douling Basin Government Frietured Rock Groundwater Sources 2011	2011 Resource Management Plan	MDBA0029	Murray Darling Frac	ctured rock	All againers within the NSW Murray Darting Basin Fractured Rock Groundwater Sources	Shallow not specified groundwater groundwater groundwater stack/domestic productive use	Renewable Connects (pourger water; recharge occurring)	d Not specified , unknown	/ Limited definition	protecting Not sp groundwater ecceptement scopyteme quality protection	sedlied / Yes; wm monitoring status unknown	Output flows mentioned but not incorporated in Plan	distance rules for bores	(a) within 100 metres of a high priority groundwater dependent acceptant issue in classes 1 of Schodules in the case of a water supply work used solely to take water pursuant to basic landholder rights. (b) within 200 metres of a high priority groundwater dependent acceptant listed in clause 1 of Schodules 3 in the case of a water supply work not used solely to take water pursuant to basic landholder rights. (c) at a distance that is more than 200 metres from a high priority groundwater dependent acceptatem listed in clause 1 of Schodule 3, excluding water supply works used solely to take water pursuant to basic landholder rights. (d) with 500 metres of a high priority taxet environment groundwater dependent ecceptante listed in clause 2 of Schodule 3, (d) within 500 metres of a high priority taxet environment groundwater dependent ecceptante listed in clause 2 of Schodule 3, (e) within 500 metres of a logo work to be dependent, c) (e) submit of a niver. (e) 100 metres of a groundwater dependent cocystement, there the location or the water supply work to use display to take water pursuant to basic andholder rights.	Not specified / unknown ły	not specified	Not specified / unknown	Impact to GDEs no specific mentioned	ks * groundwater use not specified * no specific risks mentioned
Australia New South Wales	Water Sharing Plan for the NSW Lower Macquarie Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0030 N E	Murray Darling Seve Basin	veral - regional plan	Lower Macquarie Groundwater Sources (unconsolidated alluvial aquifers and the sandstone aquifers of the Great Artesian Basin)	Shallow not specified groundwater (<200m bg) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified / unknown	/ Limited definition	protecting Not sp groundwater unknot dependent ecosystems, groundwater quality protection	becified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	trigger levels / temporary reductions	(a) 1,000 m of an existing bore nominated by an access licence, if the new water supply bore will extract >=10 ML/day, (b) 2,000 m of an existing bore nominated by an access licence, if the new bore will extract >10 ML/day and up to and including 20 ML/day, and (c) 3,000 m of an existing bore nominated by an access licence, if the new bore will extract > 20 ML/day.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* Derivation of RCLs not defined * groundwater use not specified
Australia New South Wales	Water Sharing Plan for the NSW Lover Macquarie Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0030 N	Murray Darling Seve Basin	veral - regional plan	Lower Macquarie Groundwater Sources (unconsolidated alluvial aquifers and the sandstone aquifers of the Great Artesian Basin)	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified ; unknown	/ Limited definition	protecting Not sp groundwater unknor dependent ecosystems, groundwater quality protection	becified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	trigger levels / temporary reductions	local access rules to minimise adverse groundwater level impacts	Not specified / unknown	water levels within 20% of total available drawdown	Not specified / unknown	Hydrogeological no specific r integrity impact mentioned	isks * groundwater use not specified * Derivation of RCLs not defined * no specific risks mentioned
Australia New South Wales	Water Sharing Plan for the NSW Lower Macquarie Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0030 N E	Murray Darling Seve Basin	veral - regional plan	Lower Macquarie Groundwater Sources (unconsolidated alluvial aquifers and the sandstone aquifers of the Great Artesian Basin)	Shallow not specified groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connecte (younger water; recharge occurring)	ad Not specified unknown	/ Limited definition	protecting Not sp groundwater dependent ecosystems, groundwater quality protection	becified / Yes; wn monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	water quality indicators	Local access rules to protect water quality	Not specified / unknown	Salinity thresholds of 800 uS/cm EC for raw water for drinkit supplies class, and 1,500 uS/cm EC for agricultural water class	ng Not specified / unknown	Degradation of no specific t groundwater quality mentioned	 * groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined



MDBA: Rules and Resource Condition Limits Literature Review Compilation

																							Clarification / Verification
Location information							What	Cor	ntextual information		Loud of	What are the	is a	Arro.			Management Mechanisms			Resource Condition Limit (RCL)		Risk	Jurisdictions
		Report Reference Document	GHD Catalogue	Groundwater	Control to a March		Aquifer depth / this ma	f groundwater in anagement	GW-SW	Level of	knowledge of system	environmental priorities	monitoring program in	potential GDEs	Are Cultural Flow values	s Mechanism		How are these			How was the RC	L	
Country State/Region Australia New South Walor	Water Sharing Plan for the NSW	2006 Resource Management	MDBA0030	Basin K Murray Darling S Basin	Several - regional plan	Aquiter Name Lower Macquarie Groundwater Sources (unconsolidated alluvia)	Shallow not spe	acified	Renewable? Connectivity? Renewable Connected	Not specified /	/ Limited	protecting groundwater	Not specified /	Yes;	an issue? Cultural flows mentione but not incorporated in	d distance rules	Mechanism Descriptions (a) within 100 m of high priority groundwater dependent ecosystems for water surply works (horse) eventies have in this	Not specified /	Not specified		Not specified /	Impact to GDEs	* groundwater use not
1100	Groundwater Sources 2003	Plan				aquifers of the Great Artesian Basin)	(<200m bgl) e.g. stock/domestic productive use		recharge occurring)		Connicon	dependent ecosystems, groundwater quality protection		status unknown	Plan	10.000	(b) within 200 m d high priority groundwater dependent ecosystems for water supply works (bores) nominated by an access licence, and (c) within 40 m of any river for any works.						* Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSW Lower Macquarie Government Groundwater Sources 2003	2006 Resource Management Plan	MDBA0030	Murray Darling S Basin	Several - regional plan	Lower Macquarie Groundwater Sources (unconsolidated alluvia aquifers and the sandstone aquifers of the Great Artesian Basin)	Shallow not spe I groundwater (<200m bgl) e.g. stock/domestic productive use	cified	Renewable connected (younger water; recharge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems, groundwater quality protection	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d trigger levels / temporary reductions	/ cl 40 application dl local access rules if land subsidence identified	Understanding of scientifically established relationships	Evidence of land subs	sidence	Not specified / unknown	Hydrogeological no specific risks integrity impact mentioned	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSW Macquarie Bogon Government Unregulated and Alfuvial Water Sources 2012	2012 Resource Management Plan	MDBA0031	Murray Darling A Basin	(alluvium (alluvial basin)	(i) Bell Alluvial Groundwater Source, (ii) Cudgegong Alluvial Groundwater Source, (iii) Talbragar Alluvial Groundwater Source, and (iv) Upper Macquarie Alluvial Groundwater Source	Shallow not spe groundwater (<200m bgl) e.g. stock/domestic productive use	scified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	(a) 200 metres of a water supply work located on another landholding that is authorised to take water from the same water source and is nominated by another access licence, (b) 200 metres of a water supply work located on another landholding that is authorised to take water from the same water source pursuant to basic landhold rights only. (c) 100 metres from the boundary of the landholding on which the water source water source of a water supply work is authorised to take water from the same water source and the located, unless the owner of the landholding and privacy (d) 500 metres of a water supply work that is authorised to take water from the same water source and is nominated by a local water utility access licence or an girour Utility access licence in a provided consent in writing, or (e) 100 metres of a Department observation or monitoring bore, unless the Minister has provided consent in writing.	Not specified / unknown	not specified		Not specified / unknown	Interference impacts no specific risks to existing users mentioned	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSW Macquarie Bogon Government Unregulated and Altuvial Water Sources 2012	2012 Resource Management Plan	MDBA0031	Murray Darling A Basin	(alluvium (alluvial basin)	(i) Bell Alluvial Groundwater Source, (ii) Cudgegong Alluvial Groundwater Source, (iii) Talbragar Alluvial Groundwater Source, and (iv) Upper Macquarie Alluvial Groundwater Source	Shalow not spr groundwater (<200m bgl) e.g. stock/domestic productive use	ecified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	 Restrictions of new water supply works: (a) within 250 metres of the pluume associated with a contamination source listed in Schedule 5 excluding the contamination source specified in paragraph (-0). (b) between 250 metres and 500 metres from the plume associated with a contamination source listed in Schedule 5, excluding the contamination source specified in paragraph (-), unless the Minister is satisfied that no drawdown of water wild occur within 250 metres of the plume, or (-) within 500 metres of the plume associated with the site declared to be a remediation set by the Environment Protection Authority under Declaration Number 21107 made under the Contaminated Land Management Act 1997. 	Not specified / unknown.	not specified		Not specified / unknown	Degradation of no specific risks groundwater quality mentioned	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Shaning Pitar for the NSW Macquarie Bogon Government Unregulated and Altuvial Water Sources 2012	2012 Resource Management Plan	MDBA0031	Murray Darling A Basin	Alluvium (alluvial basin)	(i) Bell Alluvial Groundwater Source, (ii) Cudgegong Alluvial Groundwater Source, (iii) Tabragar Alluvial Groundwater Source, and (ov) Upper Macquarie Alluvial Groundwater Source	Shallow not spe groundwater (<200m by) e.g. stock/domestic productive use	acified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	(a) within 100 metres of a high priority groundwater dependent ecceystem listed in Schedule 6 in the case of a water supply work that will be authorise to take water pursuant to basic landholder rights only. (b) within 200 metres of a high priority groundwater dependent ecceystem listed in Schedule 6 in the case of a water supply work that will be nominate by an access licence, (c) within 500 metres of a high priority karst environment groundwater dependent ecceystem listed a high priority karst environment groundwater (d) within 40 metres of the top of the high bank of a river.	Not specified / d unknown d	not specified		Not specified / unknown	Impact to GDEs no specific risks mentioned	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Pian for the NSW Castlereagh (below Government Binnaway) Unregulated and Alluvial Water Sources 2011	2011 Resource Management Plan	MDBA0032	Murray Darling A Basin	Alluvium (alluvial basin)	Castlereagh Altwial Groundwater Source	Shallow not spi groundwater (<200m bgl) e.g. stock/domestic productive use	ecified	Renewable Connected (younger water; recharge occuming)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	(a) 400 metres of a water supply work authorised to take water from the sam water source that is nominated by another access licence on another landholding. (b) 200 metres of a water supply work authorised to take water from the same water source pursuant to basic landholding rights on another landholding. (c) 100 metres from the boundary of the land on which the water supply work authorised to take water from the same water source pursuant to basic landholding rights on another landholding is located, unless the landholder of the land adjointing the boundary has provided consent in writing. (c) 100 metres of a water supply work authorised to take water from the same water source by a local water utility or a major utility has provided consent in writing. (e) 100 metres of a water supply work authorised to take water from the user water source by a local water utility or a major utility has provided consent in writing.	ie Not specified / unknown k	not specified		Not specified / unknown	Interference impacts to existing users	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Sharing Pian for the NSW Castlereagh (below Government Binnaway) Unregulated and Alluvial Water Sources 2011	2011 Resource Management Plan	MDBA0032	Murray Darling A Basin	Alluvium (alluvial basin)	Castlereagh Alluvial Groundwater Source	Shallow not spi groundwater (<200m bgl) e.g. stock/domestic productive use	ecified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 4. (b) between 250 metres and 800 metres of the plume associated with a contamination source listed in Schedule 4, unless the Minister is satisfied hat no drawdown of water will occur within 250 metres of the plume associated with the contamination source, or (c) at a distance specified by the Minister that is more than 500 metres from the plume associated with a contamination source (stad in Schedule 4, if a greater distance is determined by the Minister that necessary b protect the water source, the environment or public health and safety.	Not specified / unknown	not specified		Not specified / unknown	Degradation of groundwater quality	¹ groundwater use not specified ¹ no specific risks mentioned ² Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSW Castlereagh (below Government Binnaway) (urroughted and Alluvial Water Sources 2011	2011 Resource Management Plan	MDBA0032	Murray Darling A Basin	Alluvium (alluvial basin)	Castereagh Alluvial Groundwater Source	Shallow not spi groundwater (<200m bg) e.g. stock/domestic productive use	scilled	Renewable Connected (younger water; recounting)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecceystems and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	 (a) within 100 metres of a high priority groundwater dependent ecosystem listed in clause 1 of Schedule 5 in the case of a water supply work used solely to take water pursus to hasce landhold rights. (b) within 200 metres of a high priority groundwater dependent ecosystem listed in clause 1 of Schedule 5 in the case of a water supply work not used sole within 200 metres of a high priority groundwater dependent ecosystem within 200 metres of a high priority later environme. (c) within 200 metres of a high priority later environme. (c) within 200 metres of a high priority later environme. (c) at a distance specified by the Minister that is more than 200 metres from babic priority groundwater dependent ecosystem listed in clause 1 of Schedule 5, excluding water supply works used solely to take water pursues to basic landholder rights, if the Minister is satisfied that the water supply work is likely to cause more than minimal drawdown at the perimeter of that high priority pasts environment groundwater dependent ecosystem. (e) at a distance specified by the Minister that is more than 500 metres from high priority lasts environment groundwater dependent ecosystem. (e) at a distance specified by the Minister that is more than 500 metres from high priority lasts environment groundwater dependent ecosystem. (f) at a distance specified by the Minister that is more than 500 metres from high priority lasts environment groundwater dependent ecosystem. (f) min 400 metres of the top of the high bank of a trive, or (g) 100 metres from the edge of an escarpment, where the location of the water supply work is to be abord benchule ecosystem. (h) 200 metres day groundwater dependent culturally significant sile in the case of a water supply work ned solely to take water pursuant to basic landholder rights. 	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSW NSW Great Artesian Basin Government Shallow Groundwater Sources 2011	2011 Resource Management Plan	MDBA0033	Murray Darling A Basin	Alluvium (alluvial basin)	(a) GAB Central Shallow Groundwater Source, (b) GAB Surat Shallow Groundwater Source, and (c) GAB Warego Shallow Groundwater Source	Shallow not spi groundvæter (<200m bgl) e.g. stock/domestic productive use	acified	Renewable Connected (younge water; rendarge occurring)	Not specified / unknown	/ Limited definition	protecting groundwater dependent ecosystems and culturally significant sites	Not specified / unknown	Yes: monitoring status unknown	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	(a) 400 metres of a water supply work on another landholding that is authorised to take water from the same groundwater source pursuant to an access licence, if the new water supply work authorised to take water from the same groundwater source pursuant to an access licence, if the new water supply work authorised to take water from the same groundwater source pursuant to an access licence, if the new water supply work authorised to take water from the same groundwater source pursuant to ban access licence, if the new water supply work authorised to take water from the same groundwater source pursuant to bas landholder rights, (d) 100 metres from the boundary of the land on which the water supply work is located, unless the owner of the land adjoining the boundary has provided consent in writing. (e) 1,000 metres of a water supply work authorised to take water from the same groundwater source pursuant to bas an end or water supply work authorised to take water from the pursuent source and accel water utility, unless the local water utility has provided consent in writing.	Not specified / unknown ic k	not specified		Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined

PLE PERFORMANCE

Location information									Co	ontextual information							Management Mechanisms		Resource Condition Limit (RCL)		Risk	Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title Aut	hor Date	Report Reference Doc No. Typ	GHD ument Catalogue e Number	Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / tinterval	What are the main uses of groundwater in this management area?	GW-SW Renewable? connectivity?	Level of Development?	Level of knowledge of system behaviour	What are the 1 key 9 environmental r priorities 9 identified? 9	Is a groundwater Are monitoring poten program in GDEs place? identil	al Are Cultural Flo ed? an issue?	ow values Mechanism Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?	How was the RCI derived?	L Category Risk Descriptions	
Australia New South Wales	Water Sharing Plan for the NST NSW Great Antesian Basin Gov Shallow Groundwater Sources 2011	V 2011 emment	Res Man Plar	ource MDBA0033 agement	Murray Darling Basin	Alluvium (alluvial basin)	(a) GAB Central Shallow Groundwater Source, (b) GAB Surat Shallow Groundwater Source, and (c) GAB Warego Shallow Groundwater Source	Shallow r groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater u dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n but not incorpor Plan vn	nentioned distance rules rated in for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 2. (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 2, unless the Minister is satisfied that no draw down of water within 500 metres from the plume, or (c) at a distance that is more than 500 metres from the plume associated distance that is more than 500 metres from the plume associated within 500 metres from the source associated within 500 metres from the plume associated distance of the Minister to be necessary to protect the water source, the environment or public health or safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	 groundwater use not specified 'no specific risks mentioned ' Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NS NSW Great Artisein Basin Goo Shallow Groundwater Sources 2011	W 2011 emment	Resa Man Plar	ource MDBA0033 agement	Murray Darling Basin	Alluvium (alluvial basin)	(a) GAB Central Shallow Groundwater Source, (b) GAB Sural Shallow Groundwater Source, and (c) GAB Warrego Shallow Groundwater Source	Shallow or groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater of dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpo Plan wn	nentioned distance rules	(a) within 500 metres of a high priority groundwater dependent ecceystem listed in Schedule 3, or (b) at a distance that is more than 500 metres from a high priority groundwater dependert ecceystem listed in Schedule 3, excluding water supply works used safety to take water pursuant to basic landhoder right; the Minister is satisfied that the water supply work is likely to cause more than minimal drawdown at the perimeter of any high priority groundwater dependent ecceystem listed in Schedule 3, or (c) within 40 metres of the top of the high bank of any stream. (a) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work used safety to take water pursuant to basic landholder rights, or (b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work not used safety to take water pursuant to basic landholder rights.	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSI hamoi Urregulated and Goo. Altuvial Water Sources 2012	W 2012 emment	Res Man Plar	ource MDBA0034 agement	Murray Darling Basin	Alluvium (alluvial basin)	The Namo Alluvial Groundwats Sources, comprising: (i) Manilla Alluvial Groundwates Source, (iii) Curabubula Alluvial Groundwater Source, (iii) Cuipolly Alluvial Groundwater Source, (iv) Quaining Alluvial Groundwater Source.	ter Shallow r groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater u dependent ecceystems and culturally significant sites	Net specified / Yes; unknown monit status unkno	Cultural flows n ing but not incorpol Plan wn	nentioned distance rules	(a) 200 metres of a water supply work located on another landholding that is authorised to take water from the same goundwater source and is nominate by another access licence, (b) 100 metres of a water supply work located on another landholding that is authorised to take water from the same grundwater source pursuant to base to another access licence of the landholding adjoining the boundary has provided consent in writing, (d) 500 metres of a water supply work is lacated, unless the owner of the landholding adjoining the boundary has provided consent in writing, (d) 500 metres of a water supply work this authorised to take water from the same vater succe and is nominated by a locative water utility access licence or a major utility access licence unless the licence holder has provided consent in writing.	s Not specified / ed unknown s sic	not specified	Not specified / unknown	Interference impacts to existing users	 groundwater use not specified no specific risks mentioned Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the So Namoi Unregulated and So Alluvial Water Sources 2012	N 2012 ernment	Res Man Plar	ource MDBA0034 agement	Murray Darling Basin	Alluvium (alluvial basin)	The Namoi Alluvial Groundwats Sources, comprising: (i) Manilla Alluvial Groundwater Source, (ii) Currabubula Alluvial Groundwater Source, (iii) Quipotly Alluvial Groundwater Source, and (v) Quirindi Alluvial Groundwater Source.	ter Shallow n groundwater r (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ining but not incorpor Plan vn	nentioned distance rules rated in for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 5, or (b) between 250 metres and 500 metres from the plume associated with a contamination source listed in Schedule 5, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of that plume.	Nat specified / unknown	not specified	Not specified / unknown	Degradation of establish groundwater quality environmental wate rules	* groundwater use not r specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSI Marroi Unregulated and Alluvial Water Sources 2012	V 2012 emment	Res Man Plar	ource MDBA0034 agement	Murray Darling Basin	Alluvium (alluvial basin)	The Namoi Alluvial Groundwats Sources, comprising: (i) Manilla Alluvial Groundwater Source, (ii) Currabubula Alluvial Groundwater Source, (iii) Quipolly Alluvial Groundwater Source, and (vi) Quirind Alluvial Groundwater Source.	ter Shallow n groundwater r (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n but not incorpor Plan vn	nentioned distance rules rated in for bores	(a) within 100 metres of a high priority groundwater dependent ecosystem listed in Schedule 6 in the case of a water supply work that will be authorise to take water pursuant to basic landholder rights only. (b) within 200 metres of a high priority groundwater dependent ecosystem listed in Schedule 6 in the case of a water supply work that will be nominate by an access because. (c) within 40 metres of the top of the high bank of a river.	Not specified / ad unknown	not specified	Not specified / unknown	Impact to GDEs establish environmental wate rules	* groundwater use not r specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSI Upper and Lower Namoi Goo Groundwater Sources 2003	N 2006 remment	Res Man Plar	ource MDBA0035 agement	Murray Darling Basin	Alluvium (alluvial valley)	Upper and Lower Namoi Groundwater Sources	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting f groundwater dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpor Plan vn	nentioned distance rules rated in for bores	 (a) 500 metres of a bore nominated by a local water utility access licence, (b) 400 metres of a Departmental monitoring bore, (c) 400 metres of a bore extracting from the Great Artesian Basin, (d) 500 metres of a wetland, or (e) 200 metres of a river. 	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003	W 2006 ernment	Res Man Plar	ource MDBA0035 agement	Murray Darling Basin	Alluvium (alluvial valley)	Upper and Lower Namoi Groundwater Sources	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting f groundwater dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpor Plan wn	nentioned trigger levels ; rated in temporary reductions	/ local access rules to minimise adverse groundwater level impacts	Not specified / unknown	Not specified	Not specified / unknown	Hydrogeological integrity impact	* No RCL specified * groundwater use not specified * no specific risks mentioned
Australia New South Wales	Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003	W 2006 ernment	Res Man Plar	ource MDBA0035 agement	Murray Darling Basin	Alluvium (alluvial valley)	Upper and Lower Namoi Groundwater Sources	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting f groundwater d dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpor Plan wn	nentioned water quality rated in indicators	Local access rules to protect water quality	Not specified / unknown	Thresholds based on beneficial uses of groundwater based on raw drinking water and agricultural use, as defined by ANZECC 2001 and NHMRC Drinking Water Guidelines 1998	n Not specified / unknown 5.	Degradation of groundwater quality	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NS Upper and Lower Namoi Gov Groundwater Sources 2003	V 2006 ernment	Res Man Plar	ource MDBA0035 agement	Murray Darling Basin	Alluvium (alluvial valley)	Upper and Lower Namoi Groundwater Sources	Shallow r groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater u dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpor Plan vn	nentioned trigger levels , rated in temporary reductions	/ local access rules if land subsidence identified	Not specified / unknown	Evidence of land subsidence	Not specified / unknown	Hydrogeological integrity impact	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSI Upper and Lower Namoi Gov Groundwater Sources 2003	V 2006 remment	Res Man Plar	ource MDBA0035 agement	Murray Darling Basin	Alluvium (alluvial valley)	Upper and Lower Namoi Groundwater Sources	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited definition	protecting I groundwater u dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows ring incorporated in vn	distance rules Plan for bores	s Distance rules to minimise impact to GDEs	Not specified / unknown	Groundwater extraction >100m of high priority GDE, creek, river or cultural heritage values	Not specified / unknown	Impact to GDEs	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the NSI Peel Valley Regulated, Go Unegulated, Aluviourn and Pragulated, Aluviourn Sources 2010	W 2010 emment	Res Mar Plar	NDBA0036	Murray Darling Basin	Several - regional plan	the Peel Alluvium Water Sourc and the Peel Fractured Rock Water Source	ce; Shallow r groundwater (<200m bg) e.g. stock/stressic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified /	Not demonstrated	protecting I groundwater to dependent to and culturally significant sites	Not specified / Yes; unknown month unkno unkno	Cultural flows n but not incorpo Plan	nentioned trigger levels. rated in temporary reductions	(a) 200 metres of a water supply work authorised to take water from the wat source that is nominated by another access licence on another lian/bolding; (b) 200 metres of a water supply work authorised to take water from the metric of the second second second second second second second (c) 100 metres from the boundary of the land on which the work is located, unless the landholder of the land adjoining the boundary has provided consent in writing; (d) 500 metres of a water supply work authorised to take water from the water source by a local water take provided consent in writing; (d) 500 metres of a water supply work authorised to take water from the water source by a local water take provided consent in writing; (e) 400 metres of a water supply work authorised to take water from the water source by Office of Water has provided consent in writing; (c) 100 metres of a water supply work authorised to take water from the source nominated by another access licence on another landholding; (c) 100 metres from the boundary of the land on which the work is located, unless the Model of the land adjoining the boundary has provided consent in writing; (d) 500 metres of a water supply work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water usingly work authorised to take water from the water source by a local water water provided consent in writing.	ter Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * Despecific trake mentioned * Despecific trake mentioned efficient * Despecific trake mentioned defined
Australia New South Wales	Water Sharing Plan for the NSI Peel Valley Regulated, Goo Unregulated, Alluvium and Fractured Rock Water Sources 2010	V 2010 ernment	Res Man Plar	ource MDBA0036 agement	Murray Darling Basin	Several - regional plan	the Peel Alluvium Water Sourc and the Peel Fractured Rock Water Source	ce; Shallow groundwater r (<200m bgl) e.g. stock/domestic productive use	not specified	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting I groundwater dependent ecosystems and culturally significant sites	Not specified / Yes; unknown monit status unkno	Cultural flows n ring but not incorpor Plan wn	nentioned trigger levels, rated in temporary reductions	(a) 100 metres of a contamination source listed in Schedule 3: (b) between 100 metres and 300 metres of a contamination source listed in Schedule 3, unless the Minister is satisfied that no draw down of water will occur within 100 metres of the contamination source; or (c) a distance greater than 500 metres if determined by the Minister to be nacessary to protect the water source, the environment or public health or safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined

Literature Review Compilation

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																								Clarification / Verification Requirements of
Location Information					GHD				What are	e the main	ctual information		Level of	What are the key	Is a groundwater	Are			management mechanisms		Resource Condition Limit (RCL)			Jurisdictions
Country State/Region	Document Title	Author	Repo Date No.	ort Reference Do Ty	ocument Catalog	er Groundw Basin	ater Kind of Aquifer	Aquifer Name	Aquifer depth / this mana interval area?	agement Re	GW-SW connectivity	Level of Development?	system behaviour	priorities identified?	program in place?	GDEs identified?	Are Cultural Flow valu an issue?	Jes Mechanism Type	Mechanism Descriptions	How are these mechanisms derived?	What is the RCL?	How was the RC derived?	L Category Risk Descriptions	
Australia New South Wales	Water Sharing Plan for the Pael Valley Regulated, Unregulated, Alfuvium and Frontucer Eok. Water Sources 2010	NSW Government	2010	Re MM Pi	angement	Murray D Basin	arling Several - regional plan	the Feed Alluvium Water Sourc and the Feel Fractured Rock Wate Source	re; Shallow not speci granofwater (<2000 hg/l eg productive use	fied Rr (y) re cc	newable Connected unger water, nange unmng)	Not specified /	Not demonstrated	protecting groundwater dependent and culturally significant site	Not specified unknown	() Yes; monitoring status unknown	Cultural flows menion but not incorporated in Plan	red distance rules	(a) 100 metres of a high priority groundwater dependent eccesystem listed in Scheduki 4 in the case of a water supply work used solely to take water potential. (b) 200 metres of a high priority groundwater dependent eccesystem listed in Scheduki 4 in the case of a water supply works not used solely to take water pursuant to basic landholder rights; or (c) ad distance greater than 200 metres, excluding water supply works used solely to take water pursuant to basic landholder rights; if the Minister is satisfied that the water supply work is likely to cause drawdown at the perimeter of any groundwater of a high priority groundwater dependent ecceystem listed in clause (a) 100 metres of the high bark of a river. (c) addition of a high priority groundwater dependent ecceystem listed in clause (b) 200 metres of high priority groundwater dependent ecceystem listed in clause 1 of Scheduke 4 in the case of a water supply work used solely to take water pursuant to basic landholder rights; or (c) 500 metres of an high priority groundwater dependent ecceystem listed in clause 1 of Scheduke 4 in the case of a water supply work used solely to take water pursuant to basic landholder rights; or (c) 500 metres of any high priority strat environment groundwater dependent ecceystem listed in clause 2 of Scheduke 4 for water supply works not used solely to take water pursuant basic landholder fight; or (d) distance greater than 200 metres of a high priority priority works not used solely to take water pursuant basic landholder fight; or (d) distance greater than 200 metres of a high priority providwater dependent	Not specified / unknown	nd specified	Not specified / unknown	Impact to GDEs	* groundwater use not specified * no specific risks mentioned 1. Jowetion of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Gwydri: Unrogelande and Alluvial Water Sources 201	NSW Government 2	2012	Re Ma Pi	esource MDBA(anagement an	0037 Murray D Basin	arting Altuvium (altuvial valley	Upper Gwyddr Allurvial Groundwater Source	Shallow not specif granuflvatife (<200m bgl) e.g. stockformestic productive use	ified Ru (y re oc	newable Connected unger water, harge uurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ned trigger levels / n temporary reductions	(a) 200 metres d a water supply work located on another landholding that is authorized to tale water from the same water source and is nominated by another access learned. (b) 200 metres d a water supply work located on another landholding that is (another access learned). (c) 100 metres from the boundary of the landholding on which the water source pursuant to basic landhold rights only. (c) 100 metres from the boundary of the landholding and with the water source have a supply work located or senter the landholding adjoining the supply work located, unless the landholding adjoining the same water source and a water source the same water source and is nominated by a local water utility access licence or a major utility access licence and a nominated by a local water utility access licence at a major utility access licence and another is writer, and (a) 100 metres of a parametric desenvation or monitoring bore, unless the limiter the provided consent in writing.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * no specific risks mentioned * Derivation of ROLs not defined
Australia New South Wales	Water Sharing Plan for the Gwydir Unregulated and Alluvial Water Sources 201	NSW Government 2	2012	Re Ma Pla	esource MDBA(anagement an	0037 Murray D Basin	arling Alluvium (alluvial valley) Upper Gwydir Alluvial Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Re (yr re oc	newable Connected unger water; harge surring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	 Yes; monitoring status unknown 	Cultural flows mentior but not incorporated in Plan	ned trigger levels / n temporary reductions	/ (a) within 250 metres of the plume associated with a contamination source listed in Schedule 6, or (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 6, unless the Minister is satisfied that no drawdown of water will occur within 250 metres of that plume.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Gwydir Unregulated and Alluvial Water Sources 201	NSW Government 2	2012	Re Ma Pli	asource MDBA(anagement an	0037 Murray D Basin	arling Alluvium (alluvial valley) Upper Gwydir Alluvial Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Ri (yr re oc	newable Connected unger water; harge uurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mentior but not incorporated in Plan	ned distance rules n for bores	(a) within 100 meters of a high priority groundwater dependent accepteminates in School in it in case of a water supply work that will be authorise to take water pursuant to basic landholder sights only. (b) within 200 meters of a high priority groundwater dependent ecosystem listed in Schoolule 7 in the case of a water supply work that will be nominate by an access licence, or (c) within 40 meters of the top of the high bank of a river.	Not specified / d unknown d	not specified	Not specified / unknown	Impact to GDEs	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Lower Gwydir Groundwater Source 2003	NSW Government	2006	Re Ma Pli	esource MDBA(anagement an	0038 Murray D Basin	arling Alluvium (alluvial valley) Lower Gwydir Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Ra (yr re oc	newable Connected unger water; harge urring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mentior but not incorporated in Plan	ned distance rules n for bores	 >200 m of existing bore if proposed water supply bore is authorised to extrat >=20 MU/year 	t Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Lower Gwydir Groundwater Source 2003	NSW Government	2006	Re Ma Pla	esource MDBA(anagement an	0038 Murray D Basin	arling Alluvium (alluvial valley	Lower Gwydir Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Re (y re oc	newable Connected unger water; harge curring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ned trigger levels / n temporary reductions	/ local access rules to minimise adverse groundwater level impacts	Not specified / unknown	Not specified	Not specified / unknown	Hydrogeological integrity impact	* groundwater use not specified * no specific risks mentioned * RCLs not defined
Australia New South Wales	Water Sharing Plan for the Lower Gwydir Groundwater Source 2003	NSW Government	2006 1/10/2	2006 Re Ma Pla	esource MDBA(anagement an	0038 Murray D Basin	arling Alluvium (alluvial valley	Lower Gwydir Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Ra (yr re oc	newable Connected unger water; harge surring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mentior but not incorporated in Plan	ned water quality n indicators	Local access rules to protect water quality	Not specified / unknown	Thresholds based on beneficial uses of groundwater based or raw dirinking water and agricultural use, as defined by ANZECC 2001 and NHMRC Drinking Water Guidelines 199	n Not specified / unknown 6.	Degradation of groundwater quality	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Lower Gwydir Groundwater Source 2003	NSW Government	2006 1/10/2	2006 Re Ma Pla	esource MDBA(anagement an	0038 Murray D Basin	arling Alluvium (alluvial valley) Lower Gwydir Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Ra (yr re oc	newable Connected unger water; harge surring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mentior but not incorporated in Plan	ned trigger levels / n temporary reductions	/ local access rules if land subsidence identified	Not specified / unknown	Evidence of land subsidence	Not specified / unknown	Hydrogeological integrity impact	* groundwater use not specified * no specific risks mentioned * Derivation of RCLs not defined
Australia New South Wales	Water Sharing Plan for the Lower Gwydir Groundwater Source 2003	NSW Government	2006 1/10/2	2006 Re Ma Pla	esource MDBA(anagement an	0038 Murray D Basin	arling Alluvium (alluvial valley	Lower Gwydir Groundwater Source	Shallow not specif groundwater (<200m bgl) e.g. stock/domestic productive use	ified Ra (yr re oc	newable Connected unger water; harge curring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mentior but not incorporated in Plan	ned distance rules n for bores	s Distance rules to minimise impact to GDEs	Not specified / unknown	Groundwater extraction >100m of high priority GDE, creek, river or cultural heritage values	Not specified / unknown	Impact to GDEs	* groundwater use not specified * no specifier firsks mentioned * Derivation of RCLs not defined
Australia New South Wales	Wate Staring Plan for the NSW Border Rivers Unregulated and Altivial Water Sources 2012	NSW Government	2012	Re Ma Pi	esource MDBA(anagement an	0039 Murray D Basin	arling Alluvium (alluvial basin)	the NSW Border Rivers Alluvia Groundwater Sources, comprised C Surce, (i) Macintyre Alluvia Groundwater Source, (ii) NSW Border Rivers (iii) NSW Border Rivers Upstream Ketekh Bridge Alluvi Groundwater Source, (iii) NSW Border Rivers Downstream Keetah Bridge Alluvial Groundwater Source, and Groundwater Source,	4 Shallow not specif groundware (<200m bg) e.g. stock/domesiic prokudomesiic al	ified Rt (yr re oc	newable Connected unger water, harge uurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent eccsystems and culturally significant site	Not specified unknown	I / Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ned trigger levels / n temporary reductions	7 (a) 200 metres of a water supply work located on another landholding that is authorised to take water from the same water source and is noninisted by another access licence. (b) 200 metres of a water supply work located on another landholding that is authorised to take water from the same water source pursuant to basic landholder rights only. (c) 100 metres from the borned work located on another landholding adaption (c) 100 metres from the bornedary of the landholding adapting the boundary has provided correent in writing. (d) 500 metres of a water supply work his sauthorised to take water from the same water source and is nominated by a local water utility access licence or a major utility access licence, unless the licence holder has provided correent in writing. (e) 100 metres of a boundary chevration or monitoring bore, unless the Minister has provided correent in writing.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	* groundwater use not specified * no specific risks mentioned



PLE PERFORMANCE

Leastien information										Contactual information								Hannan Machaniana			Resource Condition Limit (DCL)				Requirements of
Location Information			Report Reference	ce Document	GHD Catalogue	Groundwater			What are the main uses of groundwater Aquifer depth / this management	in GW-S	W Level of	Level of knowledge system	What are the key of environmental priorities	Is a groundwater monitoring program in	Are potential GDEs	Are Cultural Flow values	Mechanism	wanagement wechanisms	How are these		Resource Condition Limit (RCL)	How was the RCL			Jurisaictions
Country State/Region Australia New South	Document Title Water Sharing Plan for the	Author Date NSW 2012	No.	Type Resource	Number MDBA0039	Basin Murray Darling	Kind of Aquifer Alluvium (alluvial basin)	Aquifer Name the NSW Border Rivers Alluvia	interval area?	Renewable? conner Renewable Conner	ctivity? Developm cted Not speci	nent? behaviour ified / Not	identified? protecting	place? Not specified /	identified? Yes;	an issue? Cultural flows mentioned	Type trigger levels /	Mechanism Descriptions (a) 200 metres of a water supply work located on another landholding that is	mechanisms deriver Not specified /	d? What is the RCL? not specified		derived? Not specified /	Category Degradation of	Risk Descriptions * ar	undwater use not
Wales	NSW Border Rivers Unregulated and Alkvial Water Sources 2012	Government		Management Plan		Basin		Groundwater Sources, comprised of: (1) Macintyne Alluvial Groundwater Source, (10) NSW Border Rivers Upstraam Keetath Bridge Alluvi Groundwater Source, (10) NSW Border Rivers Dawrasteam Keetath Bridge And (10) Ottleys Creek Alluvial Groundwater Source.	groundwater (<2000 b)(9 g. stock/domestic productive use al	(vounger water; recharge occurring)	unknown	demonstrat	ed grundwater dependent and culturally significant site	unknown	monitoring I status i unknown	uu na incorporated in	temporary reductions	subtrosted to take water from the same water source and is nominated by ancher access locnoc. (b) 200 metres of a water supply work located on another landholding that is authorised to take water from these mer water source pursuant to basic landholder rights only. (c) 100 metres from the boundary of the landholding on which the water supply work is located, unless the owner of the landholding taken to boundary has provided consent in writing. (c) 300 metres of a water supply work that is a local water from (c) 300 metres of a water supply work that is a local water from (c) 300 metres of a water supply work that is a local water from (c) 300 metres of a boats mer dosenue, unless the licence holder has provided consent in writing. (c) 100 metres of a baset supply work located on another landholding that is authorised to take water from the same water source pursuant to basic authorised to take water from the same water source pursuant to basic authorised to take water from the same water source pursuant to basic consent to metric of the landholding that is authorised to take water from the same water source pursuant to basic conders to make source and is nominated by another access licence, (c) 200 metres of a water supply work located on another landholding that is authorised to take water from the same water source pursuant to basic conders to make source and is nominated by a local water utility access licence or a major utility access licence, unless the licence holder has provided consent in writing.	unknown			unknown	groundwater quality	spe ⁺nc	ified
Australia New South Wales	Water Sources Plan for the NSW Booter Nevers Unregulated and Alluxia Water Sources 2012	NSW 2012 Government		Resource Management Plan	MDBA0039	Murray Darling Basin	Alluvium (alluvial basin)	the NSV Bodde Rivers Alluvia Groundvater Sources, comprised of: () Macintyre Alluvial Groundvater Source, (ii) NSW Border Rivers Upstream Keetah Bridge Alluvi Groundvater Source, (iii) NSW Border Rivers Downstream Keetah Bridge Alluvial Groundvater Source, and (iv) Ottleys Cresk Alluvial Groundvater Source.	4 Shallow not specified groundhuide iscolidow bgl) e.g. stock/domestic productive use al	Renovemble Conne (younger water, recharge occurring)	cted Not speci unknown	ified / Not demonstrate	protecting d groundwater dependent ecosystems and culturally significant site	Not specified / unknown	Yes; monitoring I status unknown	Cutural flows mentioned ut nat incorporated in	I distance rules for bores	(a) within 100 metres of a high priority groundwater dependent acceytem issue in Schweise 8, in the case of a wetter supply work that will be authorised to take water pursuant to basic landholder rights only. (b) within 200 metres of a high priority groundwater dependent acceystem listed in Schwelue 8, in the case of a water supply work that will be nominated by an access licence. (c) at a distance specified by the Minister that is more than 200 metres for a high priority groundwater dependent accessite listed in Schwelue 8, if such a distance specified by the Minister that is more than 200 metres for a high priority groundwater dependent accessite listed in Schwelue 8, if such a distance is determined to be necessary to prevert more than minimar davelow mit than libe authorised to take water pursuant to basic landholder rights only, or (c) within 40 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant to basic landholder rights only, or (b) 200 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant to basic landholder rights only, or (b) 200 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant to basic landholder rights only, or (b) 200 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant bo basic landholder rights only, or (b) 200 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant bo basic landholder rights only. (c) (b) 200 metres of a groundwater dependent culturally significant sile, in the case of a water supply work that will be authorised to take water pursuant bo basic landholder rights only. (c) (c) 200 metres of a groundwater dependent culturally	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs	* gr spo * nc	undvater use not ind
Australia New South Wales	Sustainable management of coastal groundwater resources and opportunities for further development: executive summary	Jay F. 2012 Punthakey, Don Woolley, NWC	Waterlines Repor Series No 79	rt Technical	MDBA0046	Not specified	Sands (coastal, aeolian)	Macleay Coastal Sands aquifer	Not specified Potable water, urbar	 Renewable Not sp (younger water; unknor recharge occurring) 	ecified / Not speci wn unknown	ified / Well define (based on numeric model)	d GDEs	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Predetermined triggers based on models	Detailed scientific study	Not specified		Not specified / unknown	Impact to GDEs	RCI	not specified,
Australia New South Wales	Sustainable Extraction Limits Derived from the Racharge Risk Assessment Method - New South Wales (part 1)	CSIRO and SKM 2010	1835-095X	Technical	MDBA0065	all within NSW	Several - regional plan	Several - regional plan	Shallow Stock, domestic groundvater (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Not speci unknown	ified / Well define (based on numeric model)	d GDEs, GW- SW interactio	Not specified / n unknown	Yes; monitoring status unknown	Cultural flows not considered/mentioned	not specified		Not specified / unknown	Not specified		Not specified / unknown	Impact to GDEs	Use risk matrix to spe assess risk matrix to spe respect to key more environmential assets, ma key ecceystem spe function, productive base and key environmental outcomes. Groundwater eduraction reduces baseflow to streams	sife groundwater use not ified, groundwater foring not specified, agement mechanism not ified
Australia New South Wales	Sustainable Extraction Limits Derived from the Recharge Risk Assessment Method - New South Wales (part 2)	CSIRO and SKM 2010	1835-095X	Technical	MDBA0066	all within NSW	Several - regional plan	Several - regional plan	Shallow Stock, domestic groundvatter (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Within Al	Ilocated Well define (based on numeric model)	d GW-SW connectivity, GDEs	Yes, groundwater monitored periodically	Yes; monitoring of status unknown	Cultural flows not	not specified		Not specified / unknown	Not specified		Not specified / unknown	Impact to GDEs	Uses risk matrix to spe assess risk with spe respect to key met environmental assets, key ecosystem function, productive base and key environmental outcomes. Groundwater extraction reduces baselfow to streams	Sfic groundwater use not ified, management hanisms not specified
Australia New South Wales	Sustainable Extraction Limits Derived from the Recharge Risk Assessment Method – New South Wales (part 3)	CSIRO and SKM 2010	1835-095X	Technical	MDBA0067	all within NSW	Several - regional plan	Several - regional plan	Shallow Stock, domestic groundwater (<200m 0g) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Within Al Limit	Ilocated Well define (based on numeric model)	d GDEs, GW- surface water connectivity	Not specified / unknown	Yes; (monitoring] status] unknown	Cultural flows mentioned out not incorporated in Plan	I not specified		Not specified / unknown	Not specified		Not specified / unknown	Impact to GDEs	Uses risk matrix to Spe assess risk with spe respect to key me environmental assets, key ecoxystem function, productive base and key environmental outcomes. Groundwater extraction reduces basellow to streams	affic groundwater use not iffed, management hanisms not specified
Australia New South Wales	Peer Review of the Lower Namoi Alluvium Numerical Groundwater Model	N.P. Merrick, 2010 D.R. Woolley and W. Timms	HC2010/6	Technical	MDBA0072	Murray Darling Basin	Alluvium (alluvial valley)	Lower Namoi aquiler	Shallow irrigation, town supp groundwater (<200m bgl) e.g. stock/domestic productive use	ly Renewable Conne (younger water; recharge occurring)	cted Over Allo	ocated Well define (based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	predicted groundwater levels at all RCI sites must remain above the top of a confined aquite: To meet this sustainability criterion groundwater levels must have stabilised or be rising at the completion of the scenario model run at the Resource Condition Limit sites.	Detailed scientific study	not specified		Detailed scientific study		N/A	
Australia New South Wales	Peer Review of the Mid Murrumbidgee Numerical Groundwater Model	N.P. Merrick, 2010 D.R. Woolley and W. Timms	HC2010/23	Technical	MDBA0073	Murray Darling Basin	Alluvium (alluvial basin)	Several - regional model	Shallow irrigation, stock and groundwater domestic (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Within Al Limit	llocated Well define (based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, Stabilisation of extraction, Prevention of dewatering confined aquiters, Maintenance of current stream baseflows.	Detailed scientific study	not specified		Detailed scientific study	Hydrogeological integrity impact		
Australia New South Wales	Peer Review of the Southern Riverine Plains Numerical Groundwater Model	J.R. Hillier, D.R. 2010 Woolley and N.P. Merrick	HC2010/25	Technical	MDBA0074	Murray Darling Basin	Several - regional plan	Aquifers within the southem Riverine Plains groundwater model	Shallow irrigation, stock and groundwater domestic (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Over Allo	ccated Well definer (based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, Stabilisation of extraction, Prevention of dewatering confined aquifers, Maintenance of current stream baseflows.	Detailed scientific study	not specified		Detailed scientific study	Hydrogeological integrity impact		
Australia New South Wales	Peer Review of the Upper Lachlan Alluvium Numerical Groundwater Model	D.R. Woolley, 2010 W. Timms and J. Hillier	HC2010/22	Technical	MDBA0076	Murray Darling Basin	Alluvium (alluvial valley)	Lachlan alluvial aquifer	Shallow irrigation groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Over Allo	(based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, Stabilisation of extraction, Prevention of dewatering confined aquifers, Maintenance of current stream baseflows.	Detailed scientific study	not specified		Detailed scientific study	Hydrogeological integrity impact		
Australia New South Wales	Peer Review of the Upper Macquarie Alluvium Numerical Groundwater Model	D.R. Woolley, 2010 W. Timms and J. Hillier	HC2010/20	Technical	MDBA0077	Murray Darling Basin	Alluvium (alluvial valley)	Upper Macquarie Groundwater Model	Shallow irrigation, stock and groundwater domestic, industrial (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Within Al Limit	llocated Well define (based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels. Stabilisation of extraction, Prevention of dewatering confined aquifers, Maintenance of current stream baseflows.	Detailed scientific study	not specified		Detailed scientific study	Hydrogeological integrity impact		
Australia New South Wales	Peer Review of the Upper Namoi Alluvium Numerical Groundwater Model	J.R. Hillier, W. 2010 Timms, and N.P. Merrick	HC2010/19	Technical	MDBA0078	Murray Darling Basin	Alluvium (alluvial valley)	Upper Namoi groundwater model	Shallow irrigation groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Conne (younger water; recharge occurring)	cted Within Al Limit	Ilocated Well define (based on numeric model)	d sustainable groundwater use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, Stabilisation of extraction, Prevention of dewatering confined aquifers, Maintenance of current stream basellows.	Detailed scientific study	not specified		Detailed scientific study	Hydrogeological integrity impact		



MDBA: Rules and Resource Condition Limits Literature Review Compilation

terature	Review	Compilation	
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Location information					Co	Intextual information								Management Mechanisms		R	tesource Condition Limit (RCL)		Rist	Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title Author	GHD Report Reference Document Catalogue Date No. Type Number	Groundwater Basin Kind of Aquifer	Aquifer dept Aquifer Name interval	What are the main uses of groundwater in this management area?	GW-SW Renewable? connectivity?	Level of Development?	Level of knowledge of system behaviour	What are the likey g environmental n priorities p identified? p	Is a groundwater Are monitoring pol program in GE place? ide	e tential DEs Ai ntified? ar	re Cultural Flow values Mechani	nism Mechanism Der	scriptions	How are these mechanisms derived	What is the RCL?		How was the RCL derived?	Category Risk Descriptions	
Australia New South Wales	Water Sharing Plan for the New South Eegg and Grogo Kiners Anae Wate Regulated, Urregulated and Government Altuvial Water Sources 2011	2011 Resource MDBA0133 Management Plan	not specified Several - regional plan	Not Specified Shallow groundwate (<200m hg) stock/dome productive u	not specified e.g. sc sc	Not opeolind / Connected unknown	Not specified / 1 unknown d	Not demonstrated	protecting N groundwater u dependent e ecosystems, water quality and culturally significant sites	Not specified / Yee unknown mc sta uni	s; C. nitoring bu tus Pl known	ultural Rows mentioned distance at not incorporated in for bores an	(a) 100 metres es water source th landhokling; (b) 100 metres same water sou conserv in writing; (c) 50 metres fe unless the land conserv in writing; (d) 500 metres same water sou water utility or (e) 100 metres unless the Mini-	of a water supply work authorised to take water from the sam at is nominated by another access licence on another of a water supply work authorised to take water from the unce pursuant to basic landholder rights on another rom the boundary of the land on which the work is located, holder of the land adjoining the boundary has provided of a water supply work authorised to take water from the unce by a local water taility or a major utility, unless the local major utility has provided consent in writing; or of a NSW? Office of Water observation or monitoring bore, ster has provided consent in writing.	ie Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South : 2 Begg and Brogo Khrers Ana Wates Regulated, Umregulated and Government Altuvial Water Sources 2011	2011 Resource MDBA0133 Minagement Plan	not specified Several - regional plan	Not Specified Shallow groundwater (<200m bg) stock/dome productive u	not specified e.g. ic ic	Not specified / Connected unknown	Not specified / I unknown c	Not demonstrated	protecting N groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / Ye unknown mc sta unl	s; C nitoring bu tus Pi known	ultural flows mentioned distance at not incorporated in for bores an	ce rules Restrictions of r (a) within 250 m listed in Schedu (b) between 25 contamination s that no drawdon associated with (c) at a distance the plume asso greater distance water source, th	new water supply works: meters of the plume associated with a contamination source ule 5; 0 metres and 500 metres of the plume associated with a source listed in Schedule 5, unless the Minister is satisfied on visuer will occur within 250 meters of the plume the contamination source; or especified by the Minister that is more than 500 metres from ciated with a contamination source listed in Schedule 5, if a is determined by the Minister that is necessary to protect the he environment or public health or safety.	Not specified / unknown	not specified		Not specified / unknown	Degrafation of groundwater quality	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South : Bega and Brogo Nierrs Area Wate Regulated, Urregulated and Government Aluvial Water Sources 2011	2011 Resource MDBA0133 Monagement Plan	not specified Several - regional plan	Not Specified Shallow groundwater (<200m bg) stock/comet productive u	not specified e.g. ic ic	Not specified / Connected unknown	Not specified / 1 unknown (Not demonstrated	protecting N groundwater u dependent ecosystems, water quality and culturally and culturally significant sites	Not specified / Ye unknown re sta uni	s; C. nitoring bu tus Pi known	ultural flows mentioned distance t not incorporated in for bores an	e rules (a) within 100 n issed in Sched, water pursuant (b) within 200 n issed in Sched, pursuant distance high priority gro excluding water landholder right to cause drawd ecosystem liste (d) within 40 m (e) 100 metres, case of a water landholder right	neters of a high priority groundwater dependent acceystem to basic lancholder rights; lancholder rights; lancholder rights; lancholder rights; lancholder rights; lancholder rights; lancholder rights; unless paragraph () applica lancholder rights; unless paragraph () apply und/s table doller to table water pursuant to basic st, if the Minister is assisted that the water supply work is like own at the perimeter of any groundwater dependent din Schodule 6; or a groundwater dependent culturally significant site in the supply work used solely to take water pursuant to basic of a groundwater dependent culturally significant site in the supply work not used solely to take water pursuant to basic ts.	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South : 2 Bellinger River Area Wates Unregulated and Alluvial Government Water Sources 2008	Resource MDBA0134 Management Plan	not specified Several - regional plan	Not Specified Shallow groundwater (<200m bg) stock/domes productive u	not specified e.g. iic ie	Not specified / Connected unknown	Not specified / 1 unknown (Not demonstrated	protecting N groundwater dependent eccsystems, water quality and culturally significant sites	Not specified / Ye unknown mc sta uni	s; C nitoring bu tus Pl known	ultural flows mentioned distance ut not incorporated in for bores lan	 ce rules (a) 200 metres: by another acce (b) 200 metres: basic landholde (c) 100 metres neighbour for a (d) 500 metres local water utilit (e) 100 metres unless negotiat 	of an approved water supply work (bore) nominated ess licence, of an approved water supply work (bore) from which in rights water is being extracted, from the property boundary, unless negotiated with a lesser distance, lesser distance, from an approved water supply works (bore) from givinago tality, and colessification or monitoring bore, from a bepariment's observation or monitoring bore, diwith the Department of Water and Energy for a	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanism derivation not specified
Australia New South Wales	Water Sharing Plan for the New South : 2 Bellinger River Area Wales Unregulated and Alluvial Government Water Sources 2008	2008 Resource MDBA0134 Management Plan	not specified Several - regional plan	Not Specified Shallow groundwate (<2000 hg) stock/dome productive u	not specified e.g. ic ic	Not specified / Connected unknown	Not specified / I unknown o	Not demonstrated	protecting N groundwater u dependent ecosystems, water quality and culturally and culturally significant sites	Not specified / Ye unknown m sta uni uni	s; C: nitoring bi tus Pi known	ultural flows mentioned distance t not incorporated in for bores an	e-rules Restrictions of re- es (a) 100 metres: unless the prop- satisfaction that minimal harm to impact on the e advised by the) (b) a greater di- nominates in or occur to the gr impact on the e advised by the) (7) Extraction o purpose betwee listed in Schedu (a) an applicati evidence that n of a contaminat (b) the Minister (c) the Minister	new water supply works: of a contamination source as listed in Schedule 4, onent can demonstrate to the Minister's at lesser distance will result in no more than to the water source, and that extraction will not swinoment or cause a threat to public health as Minister for Health, or stance than in subclasse (a) that the Minister data to the subclasse (a) that the Minister data to any subclasse (a) that the Minister data to any subclasse (a) that the Minister data to any subclasse (b) that the Minister Minister for Health. data to any subclasse that the Minister to associate will contamination source as the data to any subclasse the subclass the subclasses to associate will count, to associate the count, to associate the count, to associate will count.	Not specified / unknown	not specified		Not specified / unknown	Degrafation of groundwater quality	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanism derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2 Bellinge Rive Area Water Unregulated and Alluvial Government Water Sources 2006	2006 Resource MDBA0134 Management Plan	not specified Several - regional plan	Not Specified Shallow groundwate (<200m hg) stock/dome productive u	not specified e.g., sc se	Net specified / Connected unknown	Not specified / 1 unknown d	Not demonstrated	protecting N groundwater dependent u ecosystems, water quality and culturally significant sites	Not specified / Ye unknown mc sta un	s; C nitoring bu tus Pi known	ultural flows mentioned distance at not incorporated in for bores an	e nules (a) for basic lange singer and the second secon	wholders rights only, within 100 metres of a high wirroment groundwater dependent ecosystems, own on the maps in Schedule 5: or ses licence, within 200 metres of a high priority pendent ecosystems, schedule flag high priority taat oundwater dependent ecosystems, listed in and naps in Schedule 5: or metres of a high priority taat environment pendent ecosystems, listed in and shown on the lufe 5, or etters of the top of the high bank of any third order or or lagoon, or etters of the top of the high bank of any third order or or lagoon, or etters of the top of the high bank of any third order or existed intervals of the works commences metres.	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs	RCL derivation not specified, ricks not specified, groundwater use not specified, management mechanism derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2 Coffi Harbour Anno Weles Unregulated and Alluvia Unregulated and Alluvia Water Sources 2009	2009 Resource MDBA0135 Management Plan	not specified Several - regional plan	Not Specified Shallow groundwate (<200m hg) stock/dome productive u	not specified e.g., ic ie	Not specified / Connected unknown	Not specified / 1 unknown d	Not demonstrated	protecting N groundwater u dependent ecosystems, water quality and culturally significant sites	Not specified / Ye unknown mo sta uni	s; C nitoring bu tus Pl known	ultural flows mentioned distance at not incorporated in for bores an	(a) 200 metres take water from nominated by a (b) 200 metres take water from basic landholde (c) 100 metres (d) 500 metres to take water from local water utilif (e) 400 metres	of a water supply work being constructed or used to the allward sectors in these water sources mother access licence, of a water supply work being constructed or used to the allward supply work being constructed from the property boundary. from the property boundary, from a water supply works being constructed or used on allward sediments in these water sources by a ty or a major utility, or of a Departmental observation or monitoring bore.	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, groundwater use not specified, management mechanisms derivation not specified



Location information								Contextual information							Management Mechanisms	Resource Condition Limit (RCI)	Rick	Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title	Author Date	GHD Report Reference Document Catalo No. Type Numb	gue Groundwater er Basin	Kind of Aquifer	Aquifer Name	What are the main uses of groundwat Aquifer depth / interval area?	er in GW-SW Renewable? connectivity	Level of /? Development?	Level of knowledge of system ? behaviour	What are the key environmental priorities identified?	Is a groundwater monitoring program in place?	Are potential GDEs identified?	re Cultural Flow values Mechanism n issue? Type	- How are these Mechanism Descriptions mechanisms derive	I? What is the RCL?	How was the RCI	Estancy Biok Descript	
Australia New South Wales	Water Sources Plane for the Unregulated and Alluvial Unregulated and Alluvial Water Sources 2009	New South 2009 Weles Government	9 Reporte MDBA Management Plan	0135 not specified	Several - regional plan	Not Specified	Shalow not specified groundwater (200m bgl) e.g. stock/domesic productive use	Not specified / Connected unknown	Net specified / unknown	/ Not demonstrated	protecting granubate dependent eccoyetems, water quality significant sites	Net specified /	Yes; original status status unknown	Jaural flove mentioned distance nuk et not incorporated in for bores	es Realizations of new water supply work: (a) 100 meters of a contimulation source as listed in Schedula 2, unless the unknown applicant can demonstrate to the Minister's satisfaction, that: (a) a losser distance will result in no more than minimal harm to the water source, and (ii) the taking of water will not impact on the environment or cause a threat to public health are sourced for the Winister for Health, or (b) a greater distance than minimal harm will cource the Water source, and of the impact on the environment or cause a threat to public health are water supply work to be constructed or used to take water from the alluvial sediments in these water sources for any purpose, except basic landholder rights, which is Schedula 2, unless the applicant provides evidence, to the Minister's satisfaction, that no drawdown of groundwater (a) 100 metres of a contamistrate to be Minister's for Health.	nd specified	Not specified /	Degradation of groundwater quality	RGC derivation not specified, risks mit specified, risks mit specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Coffe Harbour Area Unregulated and Altuvial Water Sources 2009	New South 2009 Wales Government	a Resource MDBA Management Plan	1135 not specified	Several - regional plan	Not Specified	Shallow not specified groundwater (<200m bgl) e.g. stock/domesic productive use	Not specified / Connected unknown	Not specified / unknown	/ Not demonstrated	protecting groundwater dependent ecceystems, water quality and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	utural flows mentioned distance ruli ut nci incorporated in for bores fan		nd specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, riska not specified, groundwater use not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Great Metropolitin Region Groundwater Sources 2011	New South 2011 Wales Government	I Resource MDBA Management Plan	0136 Sydney Basin	Several - regional plan	Botany Sands Groundwater Source, Coss River Fractured Rock Groundwater Source, Goulburn Fractured Rock Groundwater Source, Hawkesbury, Alkoutun Groundwater Source, Alkouter Source, Mercopolian Cossal Sands Groundwater Source, Sydney Basin Bule Mourtains Groundwater Source, Sydney Basin Central Groundwater Source, Sydney Basin Coss River Groundwater Source, Sydney Basin Noth Groundwater Source Source, Sydney Basin Coss River Groundwater Source, Sydney Basin South Groundwater Source,	Shallow stock, domestic, ic groundwater utility (<200m bgl) e.g. stock/domestic productive use	cal Renevable Connected (younge water, recharge occuming)	Not specified / unknown	/ Not demonstrated	protecting groundwate dependent eccoystems, water quality and culturally significant sites	Not specified /	Yes; monitoring status unknown	ultural flows mentioned distance ruli ut noi norporated in for bores fan	Specific distance restrictions based on groundwater source. Refer to Table A Not specified / for details. unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, riska not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Great Metropolitin Region Groundwater Sources 2011	New South 2011 Wales Government	I Resource MDBA Management Plan	1136 Sydney Basin	Several - regional plan	Botany Sands Groundwater Source, Cors River Fractured Rock Groundwater Source, Groundwater Source, Groundwater Source, Groundwater Source, Source, Herropolitan Coastal Sands Groundwater Source, Sydrey Bains Bule Mourtains Groundwater Source, Sydney Basin Central Groundwater Source, Sydney Basin Coast Groundwater Source, Sydney Basin Nethan Nepean Groundwater Source, Sydney Basin Neth Groundwater Source, Sydney Basin Groundwater Source, Sydney Basin Noth Groundwater Source, Sydney Basin Groundwater Source, Sydney Basin Noth Groundwater Source, Sydney Basin Chroundwater Source, Sydney Basin Chrondwater Source, Sydney Basin South Groundwater Source, Sydney Basin South Groundwater Source, Source Source, Source Source, Source Source, Source, Source Source, Sour	Shallow stuck, domestic, k groundwater utility (<200m bgl) e.g. stock/domestic productive use	cal Renevable Connected (younge wate; recharge occuming)	Not specified / unknown	/ Not demonstrated	protecting groundwater dependent eccopystems, water quality and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	ultural flows mentioned distance rule un chi norporated in for bores fan	Restrictions of new water supply works: Not specified / (a) with 320 metres of the plume associated with a contamination source Istad a Schedule 3: (b) between 250 metres and 500 metres of the plume associated with a contral listed in Schedule 3; unless the Minister is satisfied that no drawdown d' water will occur within 250 metres of the plume associated with the contamination source; or (c) at a distance specified by the Minister that is more than 500 metres from the plume associated with a contamination source listed in Schedule 3, if a greater distance is who Minister to be necessary to protect a water source, the environment or public health or safety	not specified	Not specified / unknown	Degrafation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Ausfrahe New South Wales	v atter snamp drän för fre Greun Metropolan. Region Groundwater Sources 2011	vew sourn 2011 Wales Government	• Kessurce MDBA Management Plan	uoo sydhey Basin	Severa - regonal plan	ottamy samos Groundwater Source, Source, Coos River Fractured Rock Groundwater Source, Gouldum Frautunde Rock Haarkesbury Allavium Groundwater Source, Worock Tertiany Sands Groundwater Source, Netropolitan Cossati Sands Groundwater Source, Sydney Basin Central Groundwater Source, Sydney Basin Coss Ryhdig Datuk Negosin Groundwater Source, Sydney Basin Notrial Groundwater Source, Sydney Basin Groundwater Source, Sydney Basin Notrial Groundwater Source, Sydney Basin Groundwater Source, Sydney Basin Notri Groundwater Source, Sydney Basin Groundwater Source, Sydney Basin Notri Groundwater Source, Sydney Basin Richmod Groundwater Source.	s-sellow stock, domestic, le groundwater utility (<200m bgl) e.g. stock/domestic productive use	<pre>k-a remevacie Connected (younge water; recharge occuming)</pre>	Not specified unknown	/ Pot	protecting groundwater dependent ecosystems, and culturally significant sees	vor speched /	res; monitoring status unknown	unue di norporate in for bores	 Let write it up meets of a man promy grounowater dependent ecosystem in Not specified / listed in clause 1 of Schedule in the case of a water supply work has been unknown lasted in clause 1 of Schedule in the case of a water supply work not solely for unknown of the state is a supply sole in the sole of a water supply work has a supply work not solely for the sole in the sole of a water supply work has a supply work hasuply has a supply work has a supply work has a supply work has	HA SUCTION	vot spēcītiel / unknown	mgadt 10 SUES	rucu, aerwaran no specified, raisa no specified, management mechanians derivation not specified



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MDBA: Rules and Resource Condition Limits

Location information									Contextual information							Management Mechanisms			Resource Condition Limit (RCL)		R	sk	Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title Author	Report Re Date No.	GH eference Document Ca Type Nu	D talogue Grou mber Basin	indwater n Kind of Aquifer	Aquifer Name	Aquifer depth / interval	What are the main uses of groundwater this management area?	in GW-SW Renewable? connectivity	Level of Development?	Level of knowledge of system behaviour	What are the key environmenta priorities identified?	Is a groundwater monitoring program in place?	Are potential GDEs A identified? a	ve Cultural Flow values Mechanism n issue? Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?		How was the Riderived?	CL Catogory	Risk Descriptions	
Australia New South Wales	Water Sharing Plan for the New Sox Great Metropolitan Region Groundwater Sources 2011 Gevennr	th 2011	Resource MU Management Plan	BA0136 Sydr	Several - regional pla	Botany Sanda Groundwater Source; Coss Niver Fractured Rock Groundwater Source; Groutburn Fractured Rock Hawisedury Aldonum Fraining Sanda Groundwater Source; Wartopolitan Cossil ands Groundwater Source; Syrdrey Basin Bale Mountain Groundwater Source; Syrdrey Basin Noth Basin Central Groundwater Source; Syrdrey Basin Noth Groundwater Source; Syrdrey Basin Noth Groundwater Basin Noth Groundwater Source.	Shallow groundwater (<200m bgl) esti- stock/domesti- productive use	stock, domestic, loci	al Renewale Connocted (younger water, recharge occurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent eccsystems, water quality and culturality significant site	Not specified / unknown	Yes; C monitoring b status P unknown unknown	utural flows mentioned trigger levels ut not incorporated in temporary fan reductions	/ cl 47 application of local access rules if land subsidence identified	Understanding of scientificative established relationships	Evidence of land sub	sidence	Not specified / unknown	Hydrogeological integrity impact		RCL derivation not specified, isks not specified
Australia New South Wales	Water Sharing Plan for the New Sox Hunter Urnegulated and Water Alluvial Water Sources 2009 Governm	th 2009 ent	Resource ME Management Plan	BA0137 not s	pecified Several - regional pla	n Not Specified	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Not specified / Connected unknown	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Nat specified / unknown	Yes; C monitoring b status P unknown	Luitural flows mentioned distance rule ut not incorporated in for bores Itan	 (a) 400 metres of a water supply work being constructed or used to take water from the alluvial sectiments in these water sources nominated by another access licence. (b) 200 metres of a water supply work being constructed or used to take water from the alluvial sectiments in these water sources for basic landholder rights. (c) 50 metres from the property boundary. (d) 500 metres from a water supply works being constructed or used to take water from alluvial sectiments in these water sources by a local water utility or a major utility. or (e) 400 metres d a Department doesvation or monitoring bore. 	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users		3CL derivation not specified, isks not specified, management mechanisms derivation not specified, groundwater use not specified
Australia New South Wales	Water Sharing Plan for the New So Hunter Urregulated and Wales Alluvial Water Sources 2009 Governm	th 2009	Resource ME Management Plan	BA0137 not s	pecified Several - regional pla	n Not Specified	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Not specified / Connected unknown	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	Juliural flows mentioned distance rule ut not incorporated in for bores flan	Restrictions of new water supply works: (a) 100 metros d a contamination source as itseld in Schedule 3, unless th applicant can demonstrate to the Minister's satisfaction, that: (b) a lesser distance will result in no more than minimal harm to the water source, and (b) the taking of water will not impact on the environment or cause a threat public health as confirmed by the Minister for Health, or (b) a greater distance than in subclause (b), as determined by the Minister, ensure that to more than minimal harm will occur to the water source, and that exercation will not impact on the environment or cause a threat to publi health as confirmed by the Minister for Health.	Not specified / e unknown to to	not specified		Not specified / unknown	Degradation of groundwater quality		TCL derivation not specified, isks not specified, management mechanisms derivation not specified, groundwater use not specified
Australia New South Wales	Water Sharing Plan for the New Sox Hunter Urregulated and Wates Alluvial Water Sources 2009 Governm	th 2009	Resource ME Management Plan	BA0137 not s	pecified Several - regional pla	n Not Specified	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	not specified	Not specified / Connected unknown	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	Jultural flows mentioned distance rule ut not incorporated in for bores flan	(a) 100 metres of a high priority groundwater dependent ecosystem, excluding high priority kars terrorment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4, 10 hasic landholders rights only, or (b) 200 metres of a high priority groundwater dependent ecosystem, excluding high priority kars terrorment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4 for water supply works nominated by an access licence, or (c) 500 metres of a high priority karst environment groundwater dependent ecosystem, listed in and shown on the maps in Schedule 4 for water supply works nominated by accessing a high priority karst environment groundwater dependent ecosystem, listed in and shown on the maps in Schedule 4	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs		TCL derivation not specified, isks not specified, management mechanisms derivation not specified, groundwater use not specified
Australia New South Wales	Water Sharing Plan for the New So Intersocing Streams Wates Unregulated and Altuvial Governm Water Sources 2011	th 2011	Resource ME Management Plan	BA0138 not s	pecified Alluvium (alluvial vali	ey) Warrego Attuvial Groundwate Source and Parco Attuvial Groundwater Source	 Shallow groundwater (<200m bgl) e.g. stock/domestic productive use 	Stock and domestic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent eccsystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	Juliural Ross mentioned delance rule un noi noorporated in for bores Ilan	(a) 200 metres of a water supply work on another landholding that is authorised to take water from the same water source pursuant to an access licence, (b) 200 metres of a water supply work on another landholding that is authorised to take water from the same water source pursuant to basic landholder rights, (c) 100 metres from the boundary of the land on which the water supply work is located, unless the owner of the land adjoining the boundary has provide consent in writing, (d) 500 metres of a water supply work authorised to take water from the same water source by a local water utility or a major utility, unless the local water utility or an anyor utility, unless the local water utility or an anyor utility, unless the local water distributer that provide consent in writing.	Not specified / unknown rk	not specified		Not specified / unknown	Interference impacts to existing users		3CL derivation not specified, inskan ot specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New Sox Intersecting Streams Wates Unregulated and Alluvial Governm Water Sources 2011	th 2011	Resource ME Management Plan	BA0138 not s	Alluvium (alluvial val	Warrego Alluvial Groundwate Source and Paro Alluvial Groundwater Source	r Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	Stock and domestic	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Nat specified / unknown	Yes; C monitoring b status P unknown	Jutural flows mentioned distance rule un on incorporated in for bores Itan	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 5, (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 6, unless the Minister is satisfied that no drawdown of water will cour within 250 metres of that plume, or (c) at a distance that is more than 500 metres from the plume associated with a contamination source listed in Schedule 7, la greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health and safety.	Nat specified / unknown	not specified		Not specified / unknown	Degradation of groundwater quality		RCL derivation not specified, isks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plen for the News So- Intersecting Stramms Wates Unregulated and Alluvial Water Sources 2011	th 2011	Resource ME Management Plan	BA0138 not s	pecified Alluvium (alluvial val	ey) Warrego Attiviel Groundwate Source and Perroo Attivial Groundwater Source	r Shallow groundwater (<200m bg) e.g. stock/domestic productive use	Stock and domestic	Renewable Connected (jounger water, recharge occuming)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	Juliural Roves menfoned defance rule un noi noorporated in for bores Nan	 (a) within 2,000 metres of a high priority groundwater dependent ecceystem issted in Schoulae 6, (b) at a distance that is more than 2,000 metres from a high priority groundwater dependent ecceystem listed in Schedule 6, excluding water supply works used solely to take water pursuant to basic landholder rights, the Minister is satisfied that the water supply work is likely to cause more than minimal drawdown at the perimeter of any high priority groundwater dependent ecceystem listed in Schedule 6, or (c) within 40 metres of the top of the high bank of a river. (a) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work and solely to take water pursuant to basic landholder rights, or (b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work not used solely to take water pursuant to basic landholder rights. 	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs		3CL derivation not specified, iskan ot specified, management mechanisms Jerivation not specified
Australia New South Wales	Water Sharing Plen for the New So Lover North Coast Wales Unregulated and Altuvial Water Sources 2009	th 2009	Resource MD Management Plan	BA0139 not s	pecified Several - regional pla	n Not Specified	Shallow groundwater (<200m boj) e.g. stock/domestic productive use	Stock and domestic	Not specified / Connected unknown	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	Jultural flows mentioned distance ruli ut not incorporated in for bores Nan	(a) 200 metres of a water supply work being constructed or used to take water from the allwaid sectioners in these water sources nominated by another access licence. (b) 200 metres of a water supply work being constructed or used to take water from the allwaid sediments in these water sources for basic landholder rights. (c) 300 metres from the grouphy boundary. (d) 100 metres from a water supply works being constructed or used to take water from allwaid sediments in these water sources by a local water tom allwaid sediments in these water sources by a local water tom allwaid sediments a these water sources by a local water using or a major utility, or	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users		RCL derivation not specified, isks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New Soc Lower North Coast Wales Unregulated and Alluvial Governm Water Sources 2009	m 2009 ent	Resource MC Management Plan	BA0139 not s	pecified Several - regional pla	n Not Specified	Shallow groundwater (<200m bgi) esic stockidomesic productive use	Stock and domestic	vet specifiel / Connected unknown	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified / unknown	Yes; C monitoring b status P unknown	utural flows mentioned distance rule ut not incorporated in for bores fan	Nestructions of new water supply works: (a) 100 meters of a contamination source as listed in Schedule 3, unless the applicant can demonstrate to the Minister's satisfaction, that: (b) a lesser distance will not inpact on the minimal harm to the water source, and (b) the taking of water will not inpact on the environment or cause a threat to public health as continmed by the Minister for a greater distance than in subclause (a), as determined by the Minister for a greater distance than in subclause (a), as determined by the Minister for a greater distance than in subclause (a), as determined by the Minister for a cause a threat the public health as continmed by the Minister for a cause a threat the public health as continmed by the Minister for cause a threat the public health as continmed by the Minister for cause a threat the public health as continmed by the Minister for take the test of the distance for an ew water supply work to be constructed or used to take water from the allwals sediments in source list and Fochedula 4, unless except basic landholder rights, which is between 100 metres and 500 metres of a groundwater within 100 metres of the respective contamination source will occur.	Not specified / unknown	not specified		Not specified / unknown	Degradation of groundwater quality		<u:l enviration="" not="" specified,<br="">issk not specified, management mechanisms serivation not specified</u:l>



MDBA: Rules and Resource Condition Limits Literature Review Compilation

Loca	ation information												Contextual inform	nation								Management Mechanisms		
2000		Report Reference Docum					GHD					What are the main uses of groundwater	rin			Level of knowledge of	What are the key environmental	Is a groundwater monitoring	Are potential			management meenandario		
Country	y State/Region	Document Title	Author	Date	Report Reference No.	Document Type	Catalogue Number	Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / interval	this management area?	Renewable?	GW-SW connectivity?	Level of Development?	system behaviour	priorities identified?	program in place?	GDEs identified?	Are Cultural Flow values an issue?	Mechanism Type	Mechanism Descriptions	How are these mechanisms derive	ed? What is the RCL?
Australi	ia New South Wales	Water Sharing Plan forth Lower North Coast Unregulated and Alluvial Water Sources 2009	e New South Wales Government	2009		Resource Management Plan	MDBA0139	not specified	Several - regional plan	Not Specified	Shallow groundwater (<200m bg) e stock/domestic productive use	Stock and domestic	 Not specified / unknown 	Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant site	Not specified , unknown	Yes; monitoring status unknown	Cultural flows menionen but not incorporated in Plan	d distance rules for bores	(a) 100 metres of a high priority groundwater dependent ecosystem, excluding high priority karst environment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4, for basic landholders rights only, or (b) 200 metres of a high priority groundwater dependent ecosystems excluding high priority karst environment groundwater dependent ecosystems, listed in and shown on the maps in Schedule 4, for water supply works nominiated by an access to schedule 4, for water supply works nominiated by an access (c) 500, cm (c) 400 metres of a high priority karst environment groundwater dependent ecosystem, listed in and shown on the maps in Schedule 4, or (c) 400 metres of the top of the high bark of any third order or above stream, or lagoon, or (c) 400 metres of thesi on schedule access to the water supply work to be constructed or used to take water from the allowlai sediments in these water sconces is drifted into the underlying parent material, and the slotted intervals of the works commences dependent mass and settems.	Not specified / unknown	not specified
Australi	ia New South Wales	Water Sharing Plan for th Murrah-Wallaga Area Unregulated and Alluvial	New South Wales Government	2010		Resource Management Plan	MDBA0140	not specified	Several - regional plan	Not Specified	Shallow groundwater (<200m bgl) e.g	not specified	Not specified / unknown	Connected	Not specified / unknown	Not demonstrated	protecting d groundwater dependent	Not specified a	Yes; monitoring status	Cultural flows mentioner but not incorporated in Plan	d distance rules for bores	(a) 100 metres of a water supply work authorised to take water from the sam water source that is nominated by another access licence on another landholding;	e Not specified / unknown	not specified
		Water Sources 2010									stock/domestic						ecosystems, water quality and culturally significant site	3	unknown			(b) 100 metres of a water supply work authorised to take water from the same water source pursuant to basic landholder rights on another landholding; (c) 50 metres from the boundary of the land on which the work is located, unless the landholder of the land adjoining the boundary has provided consent in writing; (d) 500 metres from a water supply work authorised to take water from the same water source by a local water utility or a major utility, unless the local water utility or major utility has provided consent in writing; or (e) 100 metres of a NSW Office of Water observation or monitoring bore, unless the Minister has provided consent in writing.		
Australi	ia New South Wales	Water Sharing Plan for th Murrah-Wallaga Area	New South Wales	2010		Resource Management	MDBA0140	not specified	Several - regional plan	Not Specified	Shallow groundwater	not specified	Not specified / unknown	Connected	Not specified / unknown	Not demonstrated	protecting groundwater	Not specified a	Yes; monitoring	Cultural flows mentioner but not incorporated in	d distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source	Not specified / unknown	not specified
		Unregulated and Alluvial Water Sources 2010	Government			Plan					(<200m bgl) e.g stock/domestic productive use	3.					dependent ecosystems, water quality and culturally significant sites	5	status unknown	Plan		Isted in Schedule 5; (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 5, unless the Minister is satisfied than or draw down of water will occur within 250 metres of the plume associated with the contamination source; or (c) at a distance specified by the Minister that is more than 500 metres from the plume associated with a contamination source listed in Schedule 5; if a greater distance is determined by the Minister thos the necessary to protect the water source, the environment or public health or safety.		
Australi	ia New South Wales	Water Sharing Plan for th Murrah-Wallaga Area Unregulated and Alluvial Water Sources 2010	e New South Wales Government	2010		Resource Management Plan	MDBA0140	not specified	Several - regional plan	Not Specified	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	not specified	Not specified / unknown	Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent eccsystems, water quality and culturally significant siter	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	d distance rules for bores	(a) within 100 metres of a high priority groundwater dependent ecceystem listed in Schedule II in the case of a water supply work used solely to take water pursuant to basic landholder rights; or (b) within 200 metres of a high priority groundwater dependant ecceystem listed in Schedule 6 for water supply works not used solely to take water pursuant to basic landholder rights; or (c) at a distance specified by the Minister that is more than 200 metres, excluding water supply works used solely to take water pursuant to basic landholder rights; if the Minister is satisfied that the water supply work is likel to cause drawdown at the perimeter of any groundwater dependent ecceystem listed in Schedule 6; or (d) within 40 metres of a groundwater dependent curally significant site in the	Not specified / unknown	not specified
Australi	ia New South	Water Sharing Plan for th	ne New South	2008		Resource	MDBA0141	Great Artesian	Several - regional plan	Eastern Recharge Groundwate	ter Shallow	Industry, domestic,	Renewable	Connected	Not specified /	Not	protecting	Not specified	Yes:	Cultural flows mentioned	distance rules	case of a water supply work used solely to take water pursuant to basic landholder rights; or (b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work that is not used solely to take water pursuant to basic landholder rights. (b) 5 km of his horinhy concumvater dependent eccevaters listed in	Not specified /	not specified
	Wales	NSW Great Artesian Basi Groundwater Sources	in Wales Government			Management Plan		Basin		Source, Southern Recharge Groundwater Source, Surat Groundwater Source, Warrege Groundwater Source and the Central Groundwater Source	groundwater (<200m bgl) e.g stock/domestic productive use	stock, agriculture, g. water supply, recreation	(younger water recharge occurring)	;	unknown	demonstrated	groundwater dependent ecosystems, water quality and culturally	unknown	monitoring status unknown	but not incorporated in Plan	for bores	Schedule 4 in the Eastern Recharge and Southern Recharge Groundwater Sources, and (c) 50 km of high priority groundwater dependent ecosystems listed in Schedule 4 in the Surat, the Warrego and the Central Groundwater Sources.	unknown	
																	significant site	5				(a) 50 kilometres of any high priority groundwater dependent ecosystem listed in Schedule 4 in the Surat, Warrego or Central Groundwater Sources, or		
																						(b) 5 kilometres of any high priority groundwater dependent ecceystem listed in Schedule 4 in the Eastem or Southern Recharge Groundwater Sources for a water bore which may extract more than 20 ML/year under basic landholde rights, a supplementary water access licence or an access licence in total, or	r r	
																						(c) 1 kilometres of any high priority groundwater dependent ecosystem listed in Schedule at in the Eastern or Southern Recharge Groundwater Sources for a water bore which may not extract more than 20 ML/year under basic landholder rights, a supplementary water access licence or an access licence in total,	r a	
																						or (d) 200 meters from a 3rd order or higher watercourse in the Eastern or Southern Richtarge Groundwater Sources, or (e) 500 meters of an approved water supply work for a water bore which may extract more than 20 ML/year under basic landholder rights, a supplementary water access licence or an access licence in ttad, or (f) 100 meters of an approved water supply work for a water bore which may not extract nome than 20 ML/year under supel work for a water bore which may not extract nome than 20 ML/year under basic landholder rights or access licence or an access licence in total, or (g) 200 meters of the applicant's landholding boundary	,	
Australi	ia New South Wales	Water Sharing Plan for th NSW Great Artesian Basi Groundwater Sources	ne New South in Wales Government	2008		Resource Management Plan	MDBA0141	Great Artesian Basin	Several - regional plan	Eastern Recharge Groundwatt Source, Southern Recharge Groundwater Source, Surat Groundwater Source, Warreg	ter Shallow groundwater (<200m bgl) e.g stock/domestic	Industry, domestic, stock, agriculture, g. water supply, recreation	Renewable (younger water recharge occurring)	Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	d distance rules for bores	(b) 5 km of high priority groundwater dependent ecosystems listed in Schedule 4 in the Eastern Recharge and Southern Recharge Groundwater Sources, and (c) 50 km of high priority groundwater dependent ecosystems listed in Schedule 4 in the Surat, the Warrego and the Central Constructions Sources.	Not specified / unknown	not specified
										Central Groundwater Source	productive dat						and culturally significant sites	5				(a) 50 kilometres of any high priority groundwater dependent ecosystem listed in Schedule 4 in the Surat, Warrego or Central Groundwater Sources.		
																						or (b) 5 kilometres of any high priority groundwater dependent eccepstem listed in Schedule 4 in the Easten or Southern Recharge Groundwater Sources for a water bore which may extract more than 20 ML/year under basic landholds rights, a supplementary water access licence or an access licence in total, or (c) 1 kilometers of any high priority groundwater dependent eccesstem listed in Schedule 4 in the Easten or Southern Recharge Groundwater Sources for a water bore which may not extract more than 20 ML/year under basic landholder rights, a supplementary water access licence or an access licence in total, or (d) 200 meters from a 3rd order or higher watercourse in the Eastern or Southern Recharder Groundwater Sources, or (e) 500 meters of an approved water supply work for a water bore which may extract more than 20 ML/year under basic landholder rights, a supplementary water access licence or an c) 100 meters of an approved water supply work for a water bore which may not extract more than 20 ML/year under basic landholder rights a supplementary water or basic landholder rights or access licence or an access licence in total, or (a) 200 meters of the approved water supply work for a water bore which may not extract more than 20 ML/year licence in total, or (a) 200 meters of the approved total suphyticine hundrux	r - -	

Australia Rasin Vales Sharing Plan for the New South Wales Sharing Plan for the New South Wales Source MDBA0141 Great Artesian Several - regional plan Source, Source Sour

			Clarification / Verification Requirements of
Resource Condition Limit (RCL)		Risk	Jurisdictions
	How was the RCL derived?	Category Risk Descriptions	
	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified,
			deirvation not specified, groundwater use not specified
	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified, groundwater use not specified
	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified, groundwater use not specified
	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management muchanisms derivation not specified
	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified



NTS PEOPLE PERFORMANCE

MDBA: Rules and Resource Condition Limits

Location information						Contex	fual information								Mananament Mechanisms		Recource Condition Limit (RCL)		2 11	Clarification / Verification Requirements of
Country State/Region	Document Title Author	GHD Report Reference Document Catalogue Date No. Type Number	Groundwater Basin Kind of Amilier	Anuifer Name	What uses Aquifer depth / this n interval	t are the main of groundwater in management	GW-SW	Level of	Level of knowledge of system	What are the key environmental priorities identified?	Is a groundwater monitoring program in nlace?	Are potential GDEs identified?	Are Cultural Flow values	Mechanism	Markanism Descriptions	How are these	What is the PCI 2	How was the RCI	Catanon Risk Descentations	Surroutions
Australia New South Wales	Water Sharing Plan for the New South NSW Great Artesian Basin Wales Groundwater Sources Government	2008 Resource MDBA0141 Minagement Plan	Great Artesian Several - regional plan Basin	Eastern Recharge Groundwater Source, Southern Recharge Groundwater Source, Surat Groundwater Source, Warrego Groundwater Source and the Central Groundwater Source	Shallow Indus groundwater stock (<200m bgl) e.g. water stock/domestic recrea productive use	stry, domestic, Rer , agriculture, (you r supply, rech ation occ	ewable Connected inger water; arge urring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / unknown	Yes; monitoring status unknown	Cultural flows mentioned but not incorporated in Plan	drawdown limits	ts Drawdown rule to minimise impact on water supply works	Not specified / unknown	Cumulative disaudown limit of 10% of the potentiometric surface at the start of the plan	Not specified / unknown	Hydrogeological integrity impact	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South North Western Urrogulated Wates and Fractured Rock Water Government Sources 2011	2011 Resource MDBA0142 Management Plan	not specified Fractured rock	Karmantoo Fold Balt North Western Groundwater Source, Adelaide Fold Balt North Western Groundwater Source and the Lachtan Fold Balt North Western Groundwater Source	Shallow Dome groundwatgi) e.g. stock/domestic productive use	estic and Stock Rer (you rech occ	ewable Connected inger water; arge unfing)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / unknown	Yes; o monitoring I status I unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) 400 netres of a water supply work authorised to take water from the same water source that is nominated by another access licence on another landholding. (b) 200 netres of a water supply work authorised to take water from the same water source pursuant to basic landholding. (c) 100 metres from the boundary of the land or which the water supply work is located, unless the landholding the boundary has provided consent in writing. (c) 500 metres of a water supply work authorised to take water from the same water source by a local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility, unless the local water utility or a major utility and the land action or monitoring bore, unless the landhold consent in writing.	9 Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South North Western Unrogulated Wates and Fractured Rock Water Government Sources 2011	2011 Resource MDBA0142 Management Plan	not specified Fractured rock	Kanmanto Fold Belt North Western Groundwater Source, Adelaide Fold Belt North Western Groundwater Source and the Lachian Fold Belt North Western Groundwater Source	Shallow Dome groundwater (<200m bgl) e.g. stock/domestic productive use	estic and Stock Rer (you rect occ	weable Connected inger water; arge urring)	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / unknown	Yes; o monitoring I status I unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 3, (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 3, unless the Minister is satisfied that no drawdown of water will cour within 250 metres of the plume associated with the contamination source, or is more than 500 metres from the plume associated with a contamination source, or to protect the water source, the environment or public health and safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South North Western Unregulated and Fractured Rock Water Government Sources 2011	2011 Resource MDBA0142 Management Plan	not specified Fractured rock	Karmantoo Foid Balt North Western Groundwater Source, Adalaide Foid Balt North Western Groundwater Source and the Lachtan Foid Balt North Western Groundwater Source	Shallow Dom groundwater (<200m bgl) e.g. stockidonesic productive use	estic and Stock Rer (you cco	Connected more water; rarge urring)	Nd specified / unknown	Not demonstrated	protecting groundwater dependent eccosystems, water quality significant sites	Not specified /	Yes: I monitoring I status I unknown	Cultural flows mentioned but not incorporated in Plan	distance rules for bores	(a) within 2,000 metres of a high priority groundwater dependent ecosystem islation incluase 1 of Schedule 4 in the case of a water supply work used solely to take water pursuar to basic landholder rights, (b) within 2,000 metres of a high priority groundwater dependent ecosystem listed in clause 1 of Schedule 4 in the case of a water supply work not used solely to take water pursuar to basic landholder rights, (c) at a distance specified by the Minister that is more than 2,000 metres from a high priority groundwater dependent ecosystem listed in clause 1 of Schedule 4, excluding water supply works used solely to take water pursuant to basic landholder rights, 1f. Methiester is satisfied that the water supply work is likely to cause more than minimal drawdown at the perimeter d ary groundwater dependent ecosystem listed in clause 1 of Schedule 4, (d) within 500 metres of any high priority kast environment groundwater dependent ecosystem listed in clause 1 of Schedule 4, (d) within 500 metres of any high priority kast environment groundwater dependent ecosystem listed in clause 2 of Schedule 4 for water supply works not used solely to take water pursuars to basic landholder rights, (e) within 500 metres of any high priority kast environment groundwater dependent ecosystem listed in clause 2 of Schedule 4 for water supply works not used solely to take water pursuars to basic landholder rights, (f) at distance specified by the Minister that simon works used solely for basic landholder rights, if the Minister is astified that the water supply work is likely to cause more than minimal divandent and the performed or any groundwater dependent ecosystem listed in clause 2 of Schedule 4, (g) within 4 of metres of the top of the high bank (d) and order or higher river or stream, or (h) within 100 metres form the edge of an escapment, where the location of the water supply work is to be above the escapment.	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation net specified, risks net specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Richmond River Area Wales Unreguisted, Regulated and Government Alluvial Water Sources 2010	2010 Resource MDBA0143 Management Plan	not specified Several - regional plan	Not Specified	Shallow Dom groundwater (c200m bgl) 6.g. stock/domesic productive use	estic and Stock Not	specified / Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / unknown	Yes; (monitoring i status unknown	Cultural flows	distance rules for bores	(a) 400 metres of a water supply work authorised to take water from the same water source that is nominated by another access licence on another landholding; (b) 200 metres of a water supply work authorised to take water from the same water to basic landholder rights on another landholding; (c) 100 metres from the boundary of the land on which the work is located, unless the landholder of the land adjoining the boundary has provided consent in writing; (d) 500 metres of a water supply work authorised to take water from the same water source by a local water utility or major utility, unless the local water utility or major utility as provided consent in writing; (e) 100 metres of a NBW Office of Water observation or monitoring bore, unless the landwater has provided consent in writing.	> Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Richmond River Area Wales Unreguisted, Regulated and Government Alluvial Water Sources 2010	2010 Resource MDBA0143 Management Plan	not specified Several - regional plan	Not Specified	Shallow Dom groundwater (<200m bg)) e.g. stock/domesic productive use	estic and Stock Not unk	specified / Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent eccosystems, water quality and culturally significant sites	Not specified / unknown	Yes; (monitoring i status unknown	Cultural flows incorporated in Plan	distance rules for bores	Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule's. Contamination source listed in Schedule 5, unless the Minister is satisfied that in ordinar down of water will accur within 250 metres of the plume associated with the contamination source, or (c) at a distance specified by the Minister that is more than 500 metres from the plume associated with a contamination source listed in Schedule 5, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health or safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Richmond River Area Wales Unregulated, Aguited and Government Alluvial Water Sources 2010	2010 Resource MDBA0143 Management Plan	not specified Several - regional plan	Not Specified	Shallow Dom groundwater (<200m bgl) e.g. stock/domesic productive use	estic and Stock Not	specified / Connected	Not specified / unknown	Not demonstrated	protecting groundwater dependent ecosystems, water quality and culturally significant sites	Not specified / unknown	Yes; (monitoring i status unknown	Cultural flows	distance rules for bores	(a) within 100 metres of a high priority groundwater dependent ecosystem listed in Schedule is in the case of a water supply work used solely to take water pursuant to basic landholder rights; or (b) within 200 metres of a high priority groundwater dependent ecosystem listed in Schedule is in the case of a water supply work not used solely to take water pursuant to basic landholder rights; or (c) at a distance specified by the Miniser that is more than 200 metres, excluding water supply works used solely to take water pursuant to basic landholder rights; or (d) within 400 metres of a solidation that were supply work is likely to asystem listed in Schedule (c) or (d) within 400 metres of a groundwater dependent call and in Schedule (c) (e) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work not used solely to take water pursuant to basic landholder rights; or (b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work not used solely to take water pursuant to basic landholder rights; or	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified



Location information			c	ontextual information				Mananement Mechanisms		Resource Condition Limit (RCL)		First	Clarification / Verification Requirements of
Location mormation		GHD	What are the main		Level of ke	hat are the Is a ry groundwater A	re	management mesitanama		Resource condition Limit (ROL)		Trains	Junsaictions
Country State/Region	Report Reference Documer Document Title Author Date No. Type	nt Catalogue Groundwater Number Basin Kind of Aquifer	Aquifer depth / this management Aquifer Name interval area?	GW-SW Level of Renewable? connectivity? Developmen	system pr nt? behaviour id	iorities program in G entified? place? id	Are Cultural Flow values dentified? an issue?	Mechanism Type Mechanism Descriptions	How are these mechanisms derived?	What is the RCL? c	How was the RCL derived?	Category Risk Descriptions	
Australia New South Wales	Water Sharing Plan for the New South 2010 Resource Towamba River Unregulated Wates Maragem and Alluvial Water Sources Government Plan 2010	MDBA0144 Not Specified Several - regional plan	Not Specified Domestic and Stock groundwater (<200m bg/l) e.g. stock/domestic productive use	Not specified / Connected Not specifie unknown	d / Not pr demonstrated gr de de w w w a si	otecting Not specified / Y condwater unknown m pendent inknown st opstems, u ater gualady gnificant sites	es, Cultural flows metioned inothing but not in corporated in i latus Plan intoown	 (a) 100 metres of a water supply work authorised to take water from the same for borns water (b) 100 metres of a water supply work authorised to take water from the same water into the same supply work authorised to take water from the same supply work authorised to take water from the same supply work authorised to take water from the same supply work authorised to take to take the supple same same same supple same same same supple same same same same supple same same same supple same same same same same supple same same same same same same supple same same same same same same same sam	Not specified / unknown	nor specified t	Vat specified / unknown	Interference impacts to existing users	RCL derivation not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2010 Resource Towamba River Unregulated Wales Managem and Alluvial Water Sources Government Plan 2010	MDBA0144 Not Specified Several - regional plan ent	Not Specified Shallow Domestic and Stock groundwater (<2000 hgt) e.g. stock/domestic productive use	Not specified / Connected Not specifie unknown unknown	d / Not pr demonstrated gr de ec w ar si	otecting Not specified / Y cundwater unknown m pendent s oogstems, u tare quality d cutrurally nificant sites	res; Cultural flows menifoned in tomotoring but not incorporated in tatus Plan nknown	distance rules Restrictions of new water supply works: (a) within 250 metres of the plume associated with a contamination source listed in Schedule 4; (b) between 250 metres and 500 metres of the plume associated with a contamination source listed in Schedule 4, unless the Minister is satisfied that no draw down of water will occur within 250 metres of the plume associated with the contamination source; or (c) at a distance specified by the Minister that is more than 500 metres from the plume associated with a contamination source listed in Schedule 4, if a greater distance is determined by the Minister to be necessary to protect the water source, the environment or public health or safety.	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2010 Resource Towarnba River Unregulated Wales Managem and Managem and Managem 2010 2010	MDBA0144 Not Specified Several - regional plan ent	Not Specified Shallow Domestic and Stock groundwater (<2000 bgl) e.g. stock/domestic productive use	Not specified / Connected Not specifie unknown unknown	d / Not pr demonstrated gr ec ec w w ar sij	otecting Not specified / Y cundwater unknown m pendent st cosystems, su are quality of culturally nificant sites	es: Outural flows menioned nontering but not incorporated in I tatus Plan nknown	distance rules (a) within 100 metres of a high priority groundwater dependent eccosystem listed in Schedule 5 in the case d a water supply work used solely to take water pursuant to basic lancholder rights; or (b) within 200 metres d a high priority groundwater dependent eccosystem listed in Schedule 5 in the case d a water supply work this is not used solely (c) at a distance specified by the Miniater that is more than 200 metres, excluding water supply works used solely to take waters, and by works and solely to take water supply work is likely to cause diarekoment at the perimeter of any groundwater dependent eccosystem listed in Schedule 5; or (d) within 40 metres of the top of the high bank of a river.	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2010 Resource Tweed River Ana Wales Managem Unregulated and Altuxial Government Plan Water Sources 2010	MDBA0145 Not Specified Several - regional plan	Not Specified Shallow Domestic and Stock groundwater (<200m bg) e.g. stock/domestic productive use	Not specified / Connected Not specifie unknown unknown	d / Not pr demonstrated gr de ec w w ar si	otecting Net specified / Y coundwater unknown m ppendent m opsystems, u ater quality d culturally af culturally anticant sites	es; Outural flows menfoned oxitating but not incorporated in 1 tatus Plan Inknown	distance rules (a) 400 metres of a water supply work authorised to take water from the same for bores water source that is nominated by another access licence on another tandholding; (b) 200 metres of a water supply work authorised to take water from the same water source pursuant to basic landholder rights on another landholding; (c) 100 metres from the boundary of the land on which the work is located, unless the landholder of the land adjoining the boundary has provided content in writing; (d) 500 metres of a water supply work authorised to take water from the same water source by a local water utility or a major utility, unless the local water utility or major utility has provided consent in writing; or (e) 100 metres of a NNN Office of Water observation or monitoring bore, (e) 100 metres of a NNN Office of Water observation or monitoring bore,	Not specified / unknown	na specified t	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Shuring Plan for the New South 2010 Resource Tweed River Area Wales Managem Urregulated and Allovial Government Plan Water Sources 2010	n MDBA0145 Not Specified Several - regional plan ent	Not Specified Shallow Domessic and Stock groundwater (<200m bgi) e.g. stock/domestic productive use	Not specified / Connected Not specifie unknown unknown	d / Not pr demonstrated gr de ec w ar sij	otecting Not specified / Y oundwater unknown m pendent st osystems, ur ter quality id culturally philicant sites	es; Cultural flows mentioned in nonitoring but not incorporated in 1 abs Plan nknown	distance rules distance rules (a) within 250 metres of the plume associated with a contamination source (a) within 250 metres of the plume associated with a contamination source (b) between 250 metres of the plume associated with a (b) between 250 metres and 500 metres of the plume associated with a (c) between 250 metres and 500 metres of the plume associated with a contain ordinar down durate will occur within 250 metres of the plume sessolitad with the contamination source; or (c) a a distance specified by the Minister that is more than 500 metres for the plume associated with a contamination source lost in Schedule 4, if a greater distance is between by the Minister to be necessary to protect the water source, the environment or public health or safety.	Not specified / unknown	not specified to	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2010 Resource Tweed Nier Area Wates Managem Unregulated and Altuvial Government Plan Water Sources 2010 Flan Plan	MDBA0145 Not Specified Several - regional plan ent	Not Specified Shallow Domestic and Stock groundwater (<200m bg)le g., stock/domestic productive use	Not specified / Connected Not specifie unknown unknown	d / Not pr demonstrated of ec ec sis	Ortecting Not specified / Y oundwater unknown m pendent unknown st opsystems, u ater quality de dutturally gnificiant sites	es. Cultural flows menioned onothering but not incorporated in latus Plan Plan nknown	distance rules (a) within 100 metres d a high priority groundwater dependent ecosystem for bores listed in Schedule 5 in the case d a water supply work used solely to take water pursuant to basic landholder rights; or (b) within 200 metres d a high priority groundwater dependent ecosystem listed in Schedule 5 in the case d a water supply work not used solely to take water pursuant to basic landholder rights; or (c) at a distance specified by the Minister that is more than 200 metres, excluding water supply works used solely to take water pursuant to basic landholder rights, if the Minister is satisfied that the water supply work is likely to cause drawdown at the perimeter of any groundwater dependent ecosystem listed in Schedule 5; or (d) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work to used solely to take water pursuant to basic landholder rights; or da groundwater dependent culturally significant site in the case of a water supply work to used solely to take water pursuant to basic landholder rights.	Net specified / unknown	not specified P	Not specified /	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2004 Resource Alstronville Planet Manager Groundwater Sources 2003 Government Plan	MDEA0146 Not Specified Fractured rock	Akicowile Pisteau Basati Shalhow Local Utility domestic groundwater and Sock (<200m bg) e g. stock/domestic productive use	Renewable Connected Not specifie (younger water, unknown recharge occurring)	d / Not pr demonstrated gr de ec ww ar sig	otecting Not specified / Y oundwater unknown m spendent st osystems, u ater quality d culturally gnificant sites	res; Cultural flows mentioned nonitoring but not incorporated in t tatus Plan nknown	distance nulss (a) 400 metrus of a Department of Land and Water Conservation monitoring for bores bores bores an approved waters supply work (bore) nominated by another access licence, authorised to extract greater than 20 ML/yr. (b) 500 metres of an approved water supply work (bore) nominated by a local water utility access licence, or (c) 200 metres of an approved water supply work (bore) from which basic landholder rights water is being extracted, or a water supply work nominated by an access licence, authorised to extract less than 20 ML/yr.	Not specified / unknown	nat specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Wates Sharing Bars for the New South 2004 Resource Alstornile Plate Wates Managem Groundwater Sources 2003 Government Plan	MDBA0146 Not Specified Fractured rock	Alatowille Plateau Basat Aquiters Local Utility, domesic Aquiters (-200m bg) eg. stock/domesic productive use	Renewable Connected Not specifie (younger water; unknown recharge occurring)	d / Not pr demonstrated gr de ec wi ar sij	otecting Not specified / Y oundwater unknown m spendent st osystems, ur ater quality ud culturally gnificant sites	res; Cultural flows mentioned in nonitoring but not incorporated in t atus Plan nknown	trigger levels / Access licences to restrict extent and time required to reinstate water levels temporary to a degree to mitigate or and any adverse impact reductions	Not specified / unknown	Declare in groundwate levels over 3 successive years, a P significant dog in groundwater level is a single year or a minimum sustainable groundwater level is reached. See s.37	Not specified / unknown	Hydrogeological integrity impact	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South 2004 Resource Altaronille Planteau Wate Managem Groundwater Sources 2003 Government Plan	MDBA0146 Not Specified Fractured rock	Atacoville Plateau Basat Shallow Local Utility, domestic Aquifers (200m bb) e.g., stock/domestic productive use	Renewable Connected Not specifie (younger water; unknown recharge occurring)	d / Not pr demonstrated gr de ec wi ar si	otecting Not specified / Y oundwater unknown m spendent st osystems, ur ater quality ud culturally gnificant sites	res; Cultural flows mentioned nonitoring but not incorporated in Plan nknown	distance rules Distance rules to minimise contamination for bores	Not specified / unknown	Construction of new water supply works not permitted within 1 250m of a contamination source	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified



Literature	Review	Compilation	

Location information	Document Title Author	Report Reference Date No.	GHD ce Document Catalogue Type Number	Groundwater Basin Kind of Aquifer	Aquifer Name	What are the main uses of groundwater Aquifer depth / this management interval area?	Contextual information	Level of /? Development?	Level of knowledge of system behaviour	What are the ls key gr environmental m priorities pr identified? pla	a oundwater Are onitoring pote ogram in GDE ace? iden	ntial s Are Cultural FI ified? an issue?	ow values Mechanism	Management Mechanisms	How are these mechanisms derived	Resource Condition Limit (RCL)	How was the R(Elitik	Clarification / Verification Requirements of Jurisdictions
Australia New South Wales	Water Sharing Plan for the New South Altoroville Pitesau Groundwater Sources 2003 Government	2004	Resource MOBA0146 Management Plan	6 Not Specified Fractured rock	Aktoriville Plateau Bosalt Aquifers	Shallow Local Uhility, domesi groundwater and Stock (<200m bgl) e.g. stock/domesic productive use	e Renewable Connected (younger water, recharge occurring)	Net specified / unknown	Not demonstrated	protecting NK groundwate dependent eccosystems, water quality and culturally significant sites	x specified / Yes known moo stati unkr	Cultural flows of the provided of the cultural s Plan own	mentioned distance rule vrated in for bores	6) Etraction of groundwater from a new or replacement water supply work (bore) of greater han 20ML/vir is excluded within 100 metres of high priority groundwater dependent eccosystems listed in Schedule 5, or 40 metres of a rever, unless the water supply work (bore) has an impermeable seal, as specified by the Minister, constructed within the bore to isolate aquifers prevening water ingress from the restricted aquifer. (6) Construction of a new or replacement water supply work (bore) authorised to extract greater than 20ML/v) is excluded within 100 metres to 200 metres of high priority groundwater dependent eccosystems juriess the approval hidder demonstrates that there will be no drawdown resulting from groundwater extraction at the groundwater dependent eccosystems bundary. (6) Extraction of groundwater from a new or replacement water supply work (bore) of less than 20ML/v; no pursuant to a basic landholder right, is excluded within 40 metres of hip hip riority groundwater dependent eccosystems itsel in Schedule 5, and any river, unless the waters supply work (bore) of less than 20ML/v; a specified by the Miniser, constructed within the bore to isolate aquifers.	k Not specified / unknown ny k k k k k	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Dorrigo Plateau Surface Wales Water Source and the Government Dorrigo Basait Groundwater Source 2003	2004	Resource MDBA0147 Management Plan	7 Not Specified Fractured rock	Dorrigo Basalt Aquifer	Shailow Stock and domestic groundwater (<200m bg) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	xt specified / Yes, iknown mon statu unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule prated in for bores	s Construction of new water supply works not permitted within 250m of a contamination source	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Duringo Pileness Gurlace Water Source and the Dorrigo Bearts Groundwater Source 2003	2004	Resource MDBA0147 Management Plan	7 Not Specified Fractured rock	Dorrigo Basalt Aquifer	Shallow Stock and domestic groundwater groundwater groundwater stock/domestic productive use	Renewable Connected (younger water, recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	xt specified / Yes known mon stati unka	Cultural flows : toring but not incorpo s Plan own	mentioned distance rule rated in for bores	6 (1) Extraction of groundwater of greater than 20 ML/yr will not be permitted from a water supply work (bore) within 100 meters of a high priority maximum of groundwater greater than 20 ML/yr will only be permitted from a water supply work (bore) 100 meters to 200 meters from a high priority groundwater dependent ecosystem. If there is no drawdrow notatide the natural variation at the margin of the groundwater dependent ecosystem (3) Extraction of groundwater (bers than 20 ML/yr from a water supply work (bore) nominated by an access licence, and pursuant to basic landholder rights, will not be permitted within 40 m from high priority groundwater dependent ecosystems.	Not specified / unknown I. rk	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Dorrigo Plateau Surface Wales Water Source and the Government Dorrigo Basati Groundwater Source 2003	2004	Resource MDBA0147 Management Plan	7 Not Specified Fractured rock	Dorrigo Basalt Aquifer	Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting Ne groundwater un dependent ecosystems, water quality and culturally significant sites	ot specified / Yes; Iknown mon stati unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule orated in for bores	es Extraction of greater than 20ML/yr from a water supply work within 400m of an approved water supply work nominated by another licence	f Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Kulnura Mangrove Mountain Wales Groundwater Sources 2003 Government	2004	Resource MDBA0146 Management Plan	8 Not Specified Porous rock	Hawkasbury sandstone aquifers	Shallow Stock and domestic proundwater (<200m hg)R e.g. atock/domestic productive use	Renewable Connected (younger water, nocharge occurring)	Not specified / unknown	Not demonstrated	protecting Ne groundwater un dependent e cosystems, water quality and culturally significant sites, GW-SW connectivity	xt specified / Yes known mon stat unko	Cultural flows : toring but not incorpo s Plan own	mentioned distance rule vrated in for bores	 astraction from a new or replacement water supply work (bore) for the extraction of basic landholder rights will not be permitted within: 50 metres of the property boundary, or (a) 100 metres of an approved water supply work (bore) from which basic landholder rights water may be extracted, (b) extraction from a new or replacement water supply work (bore) noninated by an access licence will not be permitted within: (i) 400 metres of an approved water supply work (bore) nominated by another access licence, (ii) 200 metres of an approved water supply work (bore) from which basic landholder rights water may be extracted, or (iii) 50 metres of the property boundary. 	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risk not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Kulnura Mangrove Mountain Wales Groundwater Sources 2003 Government	2004	Resource MDBA0148 Management Plan	8 Not Specified Porous rock	Hawkesbury sandstone aquifers	Shallow Stock and domestic groundwater (<200m bg) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites, GW-SW connectivity	tt specified / Yes; known mor statu unkr	Cultural flows toring but not incorpo s Plan own	mentioned trigger levels trated in temporary reductions	/ Trigger levels to protect groundwater levels through local access rules	Not specified / unknown	Water level restrictions set out in s. 37 a,b,c & d for access licences and 1.g & h for local water utility access licence	Not specified / unknown	Hydrogeological Integrity impact	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Kulnura Mengrow Mountain Wales Groundwater Sources 2003 Government	2004	Resource MDBA0148 Management Plan	8 Not Specified Porous rock	Hawkesbury sandstone aquifers	Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater dependent ecosystems, water quality and culturally significant sites, GW-SW connectivity	ot specified / Yes, known mon stati unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule rated in for bores	se Construction of new water supply works not permitted within 100 metres of contamination source, unless the prognoment can demonstrate to the Minister's satisfaction that a lesser distance will result in no more than minimal harm to these groundwater sources, and that extraction will not impact on the environment or cause a threat to public health as advised by the Minister for Health	a Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Kufunza Mangrow Mountain Wales Groundwater Sources 2003 Government	2004	Resource MDBA0148 Management Plan	8 Not Specified Porous rock	Hawkesbury sandstone aquifers	Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater dependent ecosystems, water quality and culturally significant sites, GW-SW connectivity	ot specified / Yes, known mon stati unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule rated in for bores	es Extraction of groundwater from a water supply work is excluded within 100m of GDEs, rivers, culturally significant sites	n Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Kulnura Mengrow Mountain Wales Groundwater Sources 2003 Government	2004	Resource MDBA0148 Management Plan	8 Not Specified Porous rock	Hawkesbury sandstone aquifers	Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renevable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites, GW-SW connectivity	xt specified / Yes; known mor statt unkr	Cultural flows : toring but not incorpo s Plan own	mentioned trigger levels rated in temporary reductions	5 Application of local access rules if any evidence of land subsidence or aquificompaction s.40	er Understanding of scientifically established relationships	Land subsidence or aquifer compaction	Not specified / unknown	Hydrogeological integrity impact	RCL derivation not specified, risks not specified
Australia New South Wales	Water Sharing Plan for the New South Stuarts Point Groundwater Wales Source 2003 Government	2004	Resource MDBA0149 Management Plan	9 Not Specified Sands (coastal, aeolia	an) Pleistocene age sand formations	s Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	ot specified / Yes; Iknown mon statu unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule rated in for bores	es Extraction of greater than 20ML/yr from a water supply work within 400m of an approved water supply work authorised to extract 20 ML/yr under anothe licence	f Not specified / r unknown	not specified	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Stuarts Point Groundwater Source 2003 Government	2004	Resource MDBA0149 Management Plan	9 Not Specified Sands (coastal, aeolia	an) Pleistocene age sand formation:	s Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	ot specified / Yes known morn statu unkr	Cultural flows toring but not incorpo s Plan own	mentioned trigger levels orated in temporary reductions	s/ Application of local access rules if any evidence of water level decline that would have an adverse impact s.37	Not specified / unknown	Water levels within groundwater source	Not specified / unknown	Interference impacts to existing users	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Stuarts Point Groundwater Source 2003 Government	2004	Resource MDBA0145 Management Plan	9 Not Specified Sands (coastal, aedia	an) Pleistocene age sand formation	s Shallow Stock and domestic groundwater (<200m bg/) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	xt specified / Yes, iknown mon stati unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule rrated in for bores	es within 100 metres of a contamination source	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the New South Stuarts Point Groundwater Wales Source 2003 Government	2004	Resource MDBA0145 Management Plan	9 Not Specified Sands (coastal, aedia	an) Pleistocene age sand formation:	s Shallow Stock and domestic groundwater (<200m bgl) e.g. stock/domestic productive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Not demonstrated	protecting No groundwater un dependent ecosystems, water quality and culturally significant sites	ot specified / Yes, known mon statt unkr	Cultural flows toring but not incorpo s Plan own	mentioned distance rule rrated in for bores	 (a) 40 metres of high priority groundwater dependent ecosystems depicted Schedule 2 and listed in Schedule 5, for those exercising basic landholder rights, or (b) 100 metres of high priority groundwater dependent ecosystems shown Schedule 2 and listed in Schedule 5, for all other access licences. 	in Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms derivation not specified



NTS PEOPLE PERFORMANCE

MDBA: Rules and Resource Condition Limits Literature Review Compilation

																										Clarification / Verification Requirements of
Location information											Contextual informatio	n		to and at	What are the Is a	a				Management Mechanisms		Resource Condition Limit (RCL)			Risk	Jurisdictions
			Report Refer	ence Document	GHD Catalogue	Groundwater			Aquifer depth /	uses of groundwater this management	in GV	v-sw i	Level of	knowledge of system	environmental mo priorities pro	oundwater Are onitoring poter ogram in GDE	ntial Es Are C	Cultural Flow values	Mechanism		How are these		How was the RCI	1		
Country State/Region Australia New South Wales	Document Title Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources 2003	Author De New South 20 Wales Government	te No. 04	Type Resource Management Plan	MDBA0150	Basin Not Specified	Kind of Aquifer Sands (coastal, aeolian)	Aquifer Name Tomago, Tomaree and Stocktr Sand Aquifers	interval on Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	area? Stock and domestic	Renewable? cor Renewable Cor (younger water; recharge occurring)	nnectivity? nnected	Development? Not specified / unknown	behaviour Not demonstrated	identified? pla protecting Not groundwater unk dependent ecosystems, water quality and culturally significant sites	ace? ident t specified / Yes; known moni statu unkn	tified? an iss ; Cultu itoring but no us Plan nown	sue? ral flows mentioned ot incorporated in	Type distance rules for bores	Mechanism Descriptions Distance rules gaply to minimise interference between water supply work Several distance rules (in metres) are set in a.35 for siting water supply w with respect to existing water supply works	mechanisms derived? s. Not specified / oorks unknown	What is the RCL?	derived? Not specified / unknown	Interference impacts to existing users	Risk Officiality	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources 2003	New South 20 Wales Government	04	Resource Management Plan	MDBA0150	Not Specified	Sands (coastal, aeolian)	Tomago, Tomaree and Stocktr Sand Aquifers	on Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	Stock and domestic	Renewable Coi (younger water; recharge occurring)	nnected I	Not specified / unknown	Not demonstrated	protecting Not groundwater unk dependent ecosystems, water quality and culturally significant sites	ot specified / Yes; iknown moni statu unkn	; Cultu itoring but n us Plan nown	Iral flows mentioned ot incorporated in	trigger levels / temporary reductions	Application of local access rules if any evidence of water level decline that would have an adverse impact s.36	t Not specified / unknown	Percentage threshold (80% to 95%) of groundwater level recovery	Not specified / unknown	Hydrogeological integrity impact		RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources 2003	New South 20 Wales Government	04	Resource Management Plan	MDBA0150	Not Specified	Sands (coastal, aeolian)	Tomago, Tomaree and Stockte Sand Aquifers	on Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	Stock and domestic	Renewable Cor (younger water; recharge occurring)	nnected I	Not specified / unknown	Not demonstrated	protecting Not groundwater unk dependent ecosystems, water quality and culturally significant sites	ot specified / Yes; known moni statu unkn	; Cultu litoring but no us Plan nown	ral flows mentioned ot incorporated in	distance rules for bores	Distance rules to minimise contamination. Distance rule (in metres) is set s.37 for stiing water supply works with respect to identified contamination sources	in Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources 2003	New South 20 Wales Government	04	Resource Management Plan	MDBA0150	Not Specified	Sands (coastal, aeolian)	Tomago, Tomaree and Stockto Sand Aquifers	on Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	Stock and domestic	Renewable Coi (younger water; recharge occurring)	nnected I	Not specified / unknown	Not demonstrated	protecting Not groundwater unk dependent ecosystems, water quality and culturally significant sites	ot specified / Yes; iknown moni statu unkn	; Cultu itoring but no us Plan nown	ral flows mentioned ot incorporated in	distance rules for bores	Distance rules to minimise impact to GDEs. Several distance rules (in metres) are set in s.38 for siting water supply works with respect to identi GDEs.	Not specified / fied unknown	not specified	Not specified / unknown	Impact to GDEs		RCL derivation not specified, risks not specified, management mechanisms derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Altuvium (altuvial basin)	Statewide	Not specified	not specified	Not specified / Col unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	x specified / Yes: known moni statu unkn	: Cultu itoring consi Is nown	ral flows not	undertake technical investigations	If more than 10%, cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the GDE or significant site	Not specified / t unknown	Less than or equal to a 10% cumulative variation in the water table, allowing for typical climate' post-water sharing plan'(2) variations, 40m from any: (a) high priority cumunally significant site; listed in the schedule of the relevant water sharing plan; or A madmum of a 2m decline: cumulatively at any water supply work. (c) No mining activity to be below the natural ground surface within 200m laterally from the top of high bank or 100m vertically beneath (or the three dimensional extent of the alluvial water source - whichever is the lesser distance) of a highly connacted surface water source that is defined as a "fieldie water supply."	Not specified / unknown	Impact to GDEs		RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquiler Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Alluvium (alluvial basin)	Statewide	Not specified	not specified	Not specified / Col unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	xt specified / Yes; iknown moni statu unkn	Cultu itoring consi us nown	iral flows not idered/mentioned	undertake technical investigations	If condition 1.(a) is not met then appropriate studies will need to demonst to the Minister's satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecceystem, significant site affected water supply works	rate Not specified / ot unknown e or	 (a) Any change in the groundwater quality should not lower the benchicid use category of the groundwater source beyond 40m from the activity; and (b) to increase of more than 1% year activity in fong-term average salinity in a highly connected surface water source as the nearest point to the activity. Redesign of a highly connected surface water is not an appropriate method surface water in the properties of the salition measure to meet considerations 1(a) and 1(b) above. 	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Sands (coastal, aeolian)	Statewide	Not specified	not specified	Not specified / Cot unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	xt specified / Yes; known moni statu unkn	; Cultu itoring consi <i>is</i> nown	ral flows not idered/mentioned	undertake technical investigations	If more than 10% cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the GDE or significant site	Not specified / t unknown	Less than or equal to a 10% cumulative variation in the water table, allowing for typical cimate' post-water sharing plan'(2) variations, 40m from any. (a) high priority groundwater dependent ecosystem; or (b) high priority culturally significant site; listed in the schedule of the relevant water sharing plan; or A maximum of a 2m decline, cumulatively at any water supply work. (c) No mining activity to be below the natural ground surface within 200m laterally from the top of high bark or 100m withcally comes under water water shared of the alluvial water source - whichever is the lesser distance) of a highly connected surface water source that is defined as a	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Porous rock	Statewide	Not specified	not specified	Not specified / Cor unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	xt specified / Yes; known moni statu unkn	; Cultu itoring consi us nown	ral flows not idered/mentioned	undertake technical investigations	If more than 10% cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the GDE or significant site	Not specified / it unknown	"reliable water supply". Less than or equal to 10% cumulative variation in the water table, allowing for typical dimatic "post-water sharing plan" variations. 40m from any (a) high priority groundwater dependent ecosystem, or (b) high priority culturally significant site, listed in the schedule of the relevant water sharing plan. A maximum of a 2m decline cumulatively at any water supply work.	Not specified / unknown	Impact to GDEs		RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Porous rock	Statewide	Not specified	not specified	Not specified / Co unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	ot specified / Yes; known moni statu unkn	Cultu itoring consid us nown	ral flows not idered/mentioned	undertake technical investigations	If more than 10% cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the water supply works	Not specified / it unknown	Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40m from the activity	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Fractured rock	Statewide	Not specified	not specified	Not specified / Col unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	ot specified / Yes; known moni statu unkn	; Cultu itoring consir us nown	ral flows not idered/mentioned	undertake technical investigations	If more than 10% cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the GDE or significant site	Not specified / it unknown	Less than or equal to 10% cumulative variation in the water table, allowing for typical dimits" post-water sharing plan' variations, 40m from any (e) high priority groundwater dependent ecosystem, or (b) high priority culturally significant site, listed in the schedule of the relevant water sharing plan aminum of a 2m decline cumulatively at any three month water.	Not specified / unknown	Impact to GDEs		RCL derivation and management mechanism derivation not specified
Australia New South Wales	NSW Aquifer Interference Policy	New South 20 Wales Government	12 11445	Resource Management Plan	MDBA0161	Statewide	Fractured rock	Statewide	Not specified	not specified	Not specified / Cor unknown	nnected I	Not specified / unknown	Reasonably defined	Sustainable Not water use, GW- unk SW connectivity, cultural values	ot specified / Yes; known moni statu unkn	Cultu itoring consi us nown	ral flows not idered/mentioned	undertake technical investigations	If more than 10% cumulative variation in the water table, will need to demonstrate to the Minister's satisfaction that the variation will not preven the long-term viability of the water supply works	Not specified / tt unknown	Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40m from the activity	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation and management mechanism derivation not specified
Australia Northern Territory	Water Allocation Plan for the Tindall Limestone Aquifer, Katherine	DEPARTMENT 20 OF NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT		Resource Management Plan	MDBA0121	Daly Basin	Conduit aquifers (cavernous limestone, basalt caves, etc.)	Tindall Limestone Aquifer	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	agricultural, industria town supply, irrigatio stock and domestic	I, Renewable Cor n, (younger water; recharge occurring)	nnected I	Within Allocated Limit	Well defined (based on numeric model)	sustainable Not groundwater unk allocation and management	t specified / Yes; known moni statu unkn	; Cultu itoring but no us Plan nown	ral flows mentioned ot incorporated in	trigger levels / temporary reductions	local rules for allocation limits based on river flow, to protect GW-SW interactions. designated extraction limits based on Katherine River flow p to commencement of the water accounting year.	Not specified / rior unknown	not specified	Not specified / unknown	impact to river baseflows	Tindal Limestone aquifer provides nearly all flow in the Katherine River during dry season.	* RCL derivation not specified
Australia Northern Territory	Water Allocation Plan for the Tindall Limestone Aquifer, Katherine	DEPARTMENT 20 OF NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT	29	Resource Management Plan	MDBA0121	Daly Basin	Conduit aquifers (cavernous limestone, basalt caves, etc.)	Tindall Limestone Aquifer	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	agricultural, industria town supply, irrigatio stock and domestic	I, Renewable Cor n, (younger water; recharge occurring)	nnected 1	Within Allocated Limit	Well defined (based on numeric model)	sustainable Not groundwater unk allocation and management	st specified / Yes; Iknown moni statu unkn	; Cultu itoring but n us Plan nown	ral flows mentioned ot incorporated in	distance rules for bores	minimum bore distance of 100 m of operational bores, for new bores proposing extraction of 20 L/sec	Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows	Tindal Limestone aquifer provides nearly all flow in the Katherine River during dry season.	* RCL derivation not specified
Australia Northern Territory	Ti Tree Region Water Allocation Plan 2009	DEPARTMENT 20 OF NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT	09 03/2009A	Resource Management Plan	MDBA0122	Ti Tree Basin	Sands (coastal, aeolian)	Ti Tree Groundwater Basin Aquifer	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	agriculture, urban supply, domestic and stock	Renewable Cor (younger water; recharge occurring)	nnected I	Within Allocated Limit	Well defined (based on numeric model)	sustainable Not groundwater unk use and GDE protection	ot specified / Yes; Iknown moni statu unkn	; Cultu itoring incorp us nown	ral flows porated in Plan	not specified	not specified	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	* That environmental and cultural values will not be preserved	* RCL and mechanisms not specified
Australia Northern Territory	Ti Tree Region Water Allocation Plan 2009	DEPARTMENT 20 OF NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT	09 03/2009A	Resource Management Plan	MDBA0122	Ti Tree Basin	Sands (coastal, aeolian)	Ti Tree Groundwater Basin Aquifer	Shallow groundwater (<200m bgl) e.g. stock/domestic productive use	agriculture, urban supply, domestic and stock	Renewable Cor (younger water; recharge occurring)	nnected 1	Within Allocated Limit	Well defined (based on numeric model)	sustainable Not groundwater unk use and GDE protection	st specified / Yes; Iknown moni statu unkn	; Cultu itoring incorp us nown	iral flows porated in Plan	not specified	not specified	Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact	* That climate change is not adequately incorporated into the definition of sustainable yield	* RCL and mechanisms not specified



	1																								Clarification / Verification
Location information							1				Contextual informa	ation			F					Management Mechanisms		Resource Condition Limit (RCL)		Risk	Requirements of Jurisdictions
			Report Referen	ce Document	GHD Catalogue	Groundwater			Aquifer depth /	What are the main uses of groundwater this management	in	GW-SW	Level of	Level of knowledge of system	What are the key f environmenta priorities	Is a groundwater al monitoring program in	Are potential GDEs	Are Cultural Flow values	s Mechanism		How are these		How was the R	CL	
Country State/Region Australia Northern Territory	Document Title Ti Tree Region Water Allocation Plan 2009	Author Dat DEPARTMENT 200 OF NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT	e No. 9 03/2009A	Type Resource Management Plan	Number MDBA0122	Basin Ti Tree Basin	Kind of Aquifer Sands (coastal, aeolian)	Aquifer Name Ti Tree Groundwater Basin Aquifer	interval Shallow groundwater (<200m bgl) e.g stock/domestic productive use	area? agriculture, urban supply, domestic and J. stock	Renewable Renewable d (younger water; recharge occurring)	connectivity? Connected	Development? Within Allocate Limit	behaviour ed Well defined (based on numeric model)	identified? sustainable groundwater use and GDE protection	place? Not specified, unknown	/ Yes; monitoring status unknown	an issue? Cultural flows incorporated in Plan	Type not specified	Mechanism Descriptions not specified	mechanisms derived Not specified / unknown	What is the RCL? not specified	derived? Not specified / unknown	Degradation of *water quality groundwater quality degradation	* RCL and mechanisms not specified
Australia Northern Territory	Water Allocation Plan Western Davenport Water Control District 2011-2021	Department of 201 Natural Resources, Environment, the Arts and Sport	1 09/2011A	Resource Management Plan	MDBA0123	Georgina / Wiso Basin	Fractured rock	sandstones and siltstones	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	horticulture, urban supply, commercial]-	Renewable (younger water; recharge occurring)	Non-connected	d Below Allocate Limit	d Limited definition	sustainable groundwater use	Not specified unknown	/ Yes; but not monitored	Cultural flows mentione but not incorporated in Plan	d not specified	ndt specified	Not specified / unknown	not specified	Not specified / unknown	Not not specified specified/identified	* RCLs, risks and mechanisms not specified
Australia Northern Territory	DRAFT Alice Springs Wate Allocation Plan 2013-2018	er Water Resources 201 Branch Department of Land Resource Management	3	Resource Management Plan	MDBA0124	Amadeus Basin	Fractured rock	Alice Springs Alluvial Aquifers and the Amadeus Basin Aquife (which includes the Mereenie and Hermannsburg Sandstones, Pacoota Sandstone, Shannon and Goyder Formations)	Shallow ars groundwater (<200m bgl) e.g stock/domestic productive use	urban supply, irrigation, stock, g. domestic, commerci	Non-renewable (fossil water. al Usually confined or semi-confined)	Not specified / unknown	Below Allocate Limit	d Reasonably defined	sustainable groundwater use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows incorporated in Plan	not specified	not specified	Not specified / unknown	not specified	Not specified / unknown	Not not specified specified/identified	 RCLs, risks and mechanisms not specified
Australia Queensland	Water Management Plan fo the Upper Condamine Alluvium Sustainable Diversion Limit Area	or Water Resource 201 Allocation and Planning, Department of Natural Resources and Mines	2	Resource Management Plan	MDBA0016	Murray Darling Basin	Alluvium (alluvial valley)	Upper Condamine Alluvium	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, town water supply J.	Renewable (younger water; recharge occurring)	Connected	Over Allocated	emonstrated	sustainable d groundwater use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Under section 25 of the Water Act, the chief executive may publish a notic that limits the take and interference of water by limiting: take or interference under a water licence take under aver permit take under a water allocation not managed under a resource operations pl take under a constructing authority.	e Not specified / unknown an	not specified	Not specified / unknown	Not specified/identified	*RCL not identified *Risks to RCL not specified *Mechanisms to manage risk to RCL not specified
Australia Queensland	Sustainable Extraction Limi Derived from the Recharge Risk Assessment Method - Queensland	its CSIRO and SKM 201	0 1835-095X	Technical	MDBA0063	all within QLD	Several - regional plan	Several - regional plan	Not specified	Stock, domestic	Renewable (younger water; recharge occurring)	Connected	Below Allocate Limit	d Well defined (based on numeric model)	GW-SW connectivity, GDEs (low risk)	Not specified	/ GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	impact oriver Uses risk matrix to basellows assess risk with respect to key environmental ass key ecosystem function, productiv base and key environmental outcomes	Specific use of groundwater is not covered, groundwater monitoring not specified, ets, management mechanisms not identified e
Australia Queensland	Peer Review of the Upper Condamine Numerical Groundwater Model	J.R. Hillier, W. 201 Timms, and N.P. Merrick	0 HC2010/5	Technical	MDBA0075	Murray Darling Basin	Several - regional plan	Upper Condamine groundwater model	r Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, stock and domestic }-	Renewable (younger water; recharge occurring)	Connected	Over Allocated	Well defined (based on numeric model)	sustainable groundwater use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Stabilisation of groundwater levels, Stabilisation of extraction, Prevention of dewatering confined aquifers, Maintenance of current stream baseflows.	f Detailed scientific study	not specified	Not specified / unknown	Hydrogeological integrity impact	
Australia Queensland	Water Resource (Great Artesian Basin) Plan 2006	Queensland 200 Government	9	Resource Management Plan	MDBA0090	Great Artesian Basin	Several - regional plan	several - spatially varied	Not specified	not specified	Not specified / unknown	Non-connected	d Not specified / unknown	Not demonstrated	đ	Not specified unknown	/ Yes; monitoring status unknown	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	Not specified	Not specified / unknown	Not * RCLs, mechanis specified/identified and risks not specified	ms * RCLs, mechanisms and risks not specified
Australia Queensland	Water Resource (Fitzroy Basin) Plan 2011	Queensland 201 Government	1	Resource Management Plan	MDBA0129	Fitzroy Basin	Several - regional plan	Callide Groundwater Unit 1 and Callide Groundwater Unit 2	d Shallow groundwater (<200m bgl) e.g stock/domestic productive use	mining, irrigation, to supply, stock, a. domestic	vn Renewable (younger water; recharge occurring)	Connected	Not specified / unknown	Not demonstrated	sustainable d groundwater use	Not specified unknown	/ Yes; monitoring status unknown	Cultural flows not considered/mentioned	drawdown limi	Is Drawdown is the indicator to assess groundwater levels to support the relevant groundwater-dependent ecosystems	Not specified / unknown	unspecified drawdown durations	Not specified / unknown	Impact to GDEs	Specific risks, RCL derivation and management mechanism derivation
Australia Queensland	Water Resource (Burdekin Basin) Plan 2007	Queensland 201 Government	1	Resource Management Plan	MDBA0131	Burdekin Basin	Not specified	not specified	Not specified	not specified	Renewable (younger water; recharge occurring)	Connected	Not specified / unknown	Limited definition	Sustainable water use, GV SW connectivity,	Yes, W- groundwater monitored periodically	GDEs not identified	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown		Risks not specified, RCL not specified, management mechanisms not specified
Australia Queensland	Water Resources (Burnett Basin) Plan 2000	Queensland 201 Government	1	Resource Management Plan	MDBA0157	Burnett Basin	Several - regional plan	Coastal Burnett groundwater management area: Elliot Formation and Fairymead Bed: Aquifers	Not specified	Stock and domestic	Not specified / unknown	Connected	Not specified / unknown	Well defined (based on numeric model)	Water quality, sustainable water use, GDEs	 Yes, groundwater monitored periodically 	Yes; monitored	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms not specified
Australia Queensland	Water Resources (Mary Basin) Plan 2006	Queensland 200 Government	9	Resource Management Plan	MDBA0158	Mary Basin	Not specified	Cooloda Sandmass sub artesia area	an Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Stock, domestic and town water supply g. purposes	Not specified / unknown	Connected	Not specified / unknown	Not demonstrated	Sustainable d water use, groundwater quality, GDEs	Yes, groundwater monitored s periodically	Yes; monitored	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	RCL derivation not specified, risks not specified, management mechanisms not specified
Australia Queensland	Water Resource (Logan Basin) Plan 2007	Queensland 200 Government	9	Resource Management Plan	MDBA0159	Logan Basin	Not specified	not specified	Not specified	not specified	Not specified / unknown	Not specified / unknown	Not specified / unknown	Reasonably defined	Sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact	RCL derivation not specified, risks not specified, management mechanisms not specified, groundwater use not specified
Australia Queensland	Water Resource (Baffle Creek Basin) Plan 2010	Queensland 201 Government	0	Resource Management Plan	MDBA0160	Baffle Creek Basin	Not specified	not specified	Not specified	not specified	Not specified / unknown	Connected	Not specified / unknown	Reasonably defined	Sustainable water use, GV SW connectivity, cultural values	Not specified. W- unknown s	/ GDEs not identified	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact	RCL derivation not specified, risks not specified, management mechanisms not specified, groundwater use not specified
Australia Queensland	Coastal Burnett groundwate management area water sharing rules and seasonal water assignment rules	er Department of 200 Environment and Resource Management	9	Resource Management Plan	MDBA0173	not specified	Several - regional plan	Elliot Formation and Fairymeac Bed	d Not specified	Stock, domestic, irrigation, industrial and urban	Not specified / unknown	Connected	Not specified / unknown	Not demonstrated	sustainable d water use, groundwater quality	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.9: Section 15 of the Water Regulatio 2002). E.g., seasonal water assignment is not allowed where the water lev trigger is exceeded	n Not specified / el unknown	Trigger level: water levels must be 0.25, above the minimu operating levels if the trend shows a decline	um Not specified / unknown	Degradation of Risk to aquifer from groundwater quality saltwater intrusion	n
Australia Queensland	Coastal Burnett Groundwat Management Area Dewatering Rules	er Department of 200 Environment and Resource Management	7	Resource Management Plan	MDBA0174	not specified	Several - regional plan	Elliot Formation and Fairymeac Bed	d Not specified	Dewatering	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	waterlogging d	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Dewatering rules (pg.5) apply to salt water intrusion and water levels	Not specified / unknown	not specified	Not specified / unknown	Degradation of Risk to aquifer fro groundwater quality saltwater intrusion	n No RCL specified
Australia Queensland	Border Rivers Groundwater Management Area water sharing rules and seasonal water assignment rules	Department of 201 Environment and Resource Management	0	Resource Management Plan	MDBA0175	not specified	Alluvium (alluvial valley)	Not specific regional plan	Not specified	Stock, domestic, tow water supply, urban	n Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	zonal limits on entitlements	Seasonal water assignment rules (pg.15; Section 15 of the Water Regulati 2002); seasonal water assignment is only allowed in particular sub-areas	on Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Border Rivers Groundwater Management Area water sharing rules and seasonal water assignment rules	Department of 201 Environment and Resource Management	0	Resource Management Plan	MDBA0175	not specified	Alluvium (alluvial valley)	Not specific regional plan	Not specified	Stock, domestic, tow water supply, urban	n Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.15; Section 15 of the Water Regulati 2002) and Forward drawing rules (pg.14); e.g. seasonal assignment won't be approved is there is an adverse affect on other users (including water quality) or the environment	on Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Central Condamine Alluviu Groundwater Management Area water sharing rules, seasonal water assignment rules and water licence transfer rules	m Department of 201 Natural Resources and Mines	3	Resource Management Plan	MDBA0176	not specified	Alluvium (alluvial valley)	Central Condamine Alluvium	Not specified	Stock and domestic	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	water trading (within the management area)	Rules for 'Group S' water sharing licences (pg. 6)	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Central Condamine Alluviu Groundwater Management Area water sharing rules, seasonal water assignment rules and water licence transfer rules	m Department of 201 Natural Resources and Mines	3	Resource Management Plan	MDBA0176	not specified	Alluvium (alluvial valley)	Central Condamine Alluvium	Not specified	Stock and domestic	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.8: Section 15 of the Water Regulatio 2002): eg.not allowed if there is adverse impact to other users	n Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Central Condamine Alluviu Groundwater Management Area water sharing rules, seasonal water assignment rules and water licence transfer rules	m Department of 201 Natural Resources and Mines	3	Resource Management Plan	MDBA0176	not specified	Alluvium (alluvial valley)	Central Condamine Alluvium	Not specified	Stock and domestic	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	water trading (within the management area)	Water licence transfer nulls (bg. 10): e.g. transfer only parmitted H licence states nominal entitlements, licence activity is in the same sub-area as reginal licence, on circases to the total nominal entitlement volume and no change to licence conditions, and new works have to be 400m from the existing works.	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Dalrymple Creek Alluvium groundwater management area water sharing and seasonal water assignment rules	Department of 201 Natural Resources and Mines	1	Resource Management Plan	MDBA0177	not specified	Alluvium (alluvial valley)	Dalrymple Creek Alluvium	Not specified	Stock and domestic	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified unknown	/ GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.7; Section 15 of the Water Regulatio 2002); e.g., water assignment not allowed if there is adverse impacts to ot users or environment	n Not specified / ner unknown	not specified	Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Oakey Creek Groundwater Management Area water sharing and seasonal water assignment rules	Department of 200 Natural Resources and Mines	5	Resource Management Plan	MDBA0178	not specified	Alluvium (alluvial valley)	Oakey Creek Alluvium	Not specified	Stock and domestic	Not specified / unknown	Not specified / unknown	Not specified / unknown	Not demonstrated	sustainable d water use	Not specified , unknown	/ GDEs not identified	Cultural flows not considered/mentioned	zonal limits on entitlements	Seasonal water assignment rules (pg.13): water assignment has limits on certain sub-areas	Not specified / unknown	not specified	Not specified / unknown	Not specified/identified	No RCL specified, no specific risks



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Location information					CHD					C What are the main	ontextual informat	tion		Level of	What are the key	ls a groundwater	Are			Management Mechanisms			Resource Condition Limit (RCL)		Risk	Jurisdictions
Country State/Region	Document Title	Author Da	Report Referente No.	nce Document Type	Catalogue Number	Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / interval	this management area?	n Renewable? c	GW-SW Le connectivity? De	evel of evelopment?	knowledge or system behaviour	priorities identified?	program in place?	GDEs identified?	Are Cultural Flow value an issue?	s Mechanism Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?		How was the RC derived?	L Category Risk Descriptions	
Australia Queensland	Upper Hodgson Creek groundwater management water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	99	Resource Management Plan	MDBA0179	not specified	Fractured rock	Basalt formation of the Main Range Volcanics	Not specified	Stock and domestic	Not specified / N unknown u	Not specified / Ne unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.14; Section 15 of the Water Regulation 2002): limits on the volume of water assigned, only allowed within respective sub-areas	n Not specified / e unknown	not specified		Not specified / unknown	Not specified/identified	No RCL specified, no specific risks
Australia Queensland	Upper Hodgson Creek groundwater management water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	09	Resource Management Plan	MDBA0179	not specified	Fractured rock	Basalt formation of the Main Range Volcanics	Not specified	Stock and domestic	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	zonal limits on entitlements	Seasonal water assignment rules (pg.14; Section 15 of the Water Regulation 2002): seasonal water assignment only allowed within respective sub-areas	n Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL specified, no specific risks
Australia Queensland	Toowoomba City Basalts groundwater management area seasonal water assignment rules	Department of 200 Environment and Resource Management	09	Resource Management Plan	MDBA0180	not specified	Fractured rock	Toowoomba City Basalts GMA	A Not specified	Stock, domestic, urban and town suppl	Not specified / Not specified	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Sessonal water assignment rules (pg.5: Section 15 of the Water Regulation 2002): sessonal assignment not granted if there is potentially an adverse affect on other users, town supply or the environment	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Toowoomba City Basalts groundwater management area seasonal water assignment rules	Department of 200 Environment and Resource Management	09	Resource Management Plan	MDBA0180	not specified	Fractured rock	Toowoomba City Basalts GMA	A Not specified	Stock, domestic, urban and town supp!	Not specified / N ly unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.5: Section 15 of the Water Regulation 2002; seasonal assignment may be approved if there is no other suitable water supply and requires water for safety or hazard reduction purpose, to maintain a significant asset or maintain enterprise to avoid significant	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL, no specific risks
Australia Queensland	Bowen groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	11	Resource Management Plan	MDBA0181	not specified	Several - regional plan	Don River Alluvium, Euri Creel Alluvium, Granit, Town Common Alluvium	k Not specified	Stock, domestic, irrigation, industrial and urban	Not specified / Nunknown u	Not specified / No unknown un	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Relicanp Seasonal water assignment rules (pg.9: Section 15 of the Water Regulation 2002): Imilis on the volume of water assigned within zones of the Bowen groundwater management area	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL, no specific risks
Australia Queensland	Bowen groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	11	Resource Management Plan	MDBA0181	not specified	Several - regional plan	Don River Alluvium, Euri Creel Alluvium, Granit, Town Common Alluvium	k Not specified	Stock, domestic, irrigation, industrial and urban	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	zonal limits on entitlements	Seasonal water assignment rules (pg.9; Section 15 of the Water Regulation 2002): seasonal water assignment will not be granted if there is potential to adversely affect other water users or the environment	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Callide Valley groundwater management area water sharing and seasonal water assignment rules	Department of 200 Environment and Resource Management	09	Resource Management Plan	MDBA0182	not specified	Alluvium (alluvial valley)	Callide Creek Alluvium, Karibo Creek Alluvium, Grevillea Cree Alluvium, Prospect Creek Alluvium, Kroombit Creek Alluvium, Bell Creek Alluvium	e Not specified ek	Stock and domestic	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.10; Section 15 of the Water Regulation 2002; seasonal water assignment will not be granted if there is potential to adversely affect other users or the environment	n Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Callide Valley groundwater management area water sharing and seasonal water assignment rules	Department of 200 Environment and Resource Management	09	Resource Management Plan	MDBA0182	not specified	Alluvium (alluvial valley)	Callide Creek Alluvium, Karibo Creek Alluvium, Grevillea Cree Alluvium, Prospect Creek Alluvium, Kroombit Creek Alluvium, Bell Creek Alluvium	e Not specified ek	Stock and domestic	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.10; Section 15 of the Water Regulation 2002): limits on the volume of water allowed to be used	n Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL, no specific risks
Australia Queensland	Don River, Dee River and Alma Creek groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	12	Resource Management Plan	MDBA0183	not specified	Alluvium (alluvial valley)	Don River Alluvium, Dee River Alluvium, Alma Creek Alluviun Callide Creek Alluvium, Pocker Creek Alluvium	r Not specified n, t	Stock and domestic	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.8. Section 15 of the Water Regulation 2002): limits on the volume of water allowed to be used	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL, no specific risks
Australia Queensland	Don River, Dee River and Alma Creek groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	12	Resource Management Plan	MDBA0183	not specified	Alluvium (alluvial valley)	Don River Alluvium, Dee River Alluvium, Alma Creek Alluviun Callide Creek Alluvium, Pocker Creek Alluvium	r Not specified n, t	Stock and domestic	Not specified / N unknown u	Not specified / No unknown un	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	zonal limits on entitlements	Seasonal water assignment rules (pg.8, Section 15 of the Water Regulation 2002): seasonal water assignment is only allowed in certain groundwater management areas and is not allowed between sub-areas other than those specified in the document	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL, no specific risks
Australia Queensland	Don River, Dee River and Alma Creek groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	12	Resource Management Plan	MDBA0183	not specified	Alluvium (alluvial valley)	Don River Alluvium, Dee River Alluvium, Alma Creek Alluviun Callide Creek Alluvium, Pocke Creek Alluvium	r Not specified n, t	Stock and domestic	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.8. Section 15 of the Water Regulation 2002): seasonal water assignment will not be granted if there is potential to adversely affect other water users (includes groundwater quality) or the environment	Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Don River, Dee River and Alma Creek groundwater management area water sharing and seasonal water assignment rules	Department of 20 Environment and Resource Management	12	Resource Management Plan	MDBA0183	not specified	Alluvium (alluvial valley)	Don River Alluvium, Dee River Alluvium, Alma Creek Alluviun Callide Creek Alluvium, Pocker Creek Alluvium	r Not specified n, t	Stock and domestic	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.8; Section 15 of the Water Regulation 2002; seasonal water assignment will not be granted if there is potential to adversely affect other water users (includes groundwater quality) or the environment	Not specified / unknown	not specified		Not specified / unknown	Degradation of groundwater quality	No RCL specified
Australia Queensland	Pioneer Groundwater Management Area Water Sharing and Seasonal Wate Assignment Rules	Department of 20 Natural er Resources and Mines	12	Resource Management Plan	MDBA0184	not specified	Several - regional plan	Pioneer River Alluvium, Baker Creek Alluvium, Sandy Creek Alluvium, Alligator Creek Alluvium, Sandringham Creek Alluvium, Carmila Beds, Campwyn Beds, Urannah Comolex	s Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Nat specified / Na unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.13; Section 15 of the Water Regulation 2002; seasonal water assignment not allowed if the EC trigger is exceed or rising trend	n Not specified / a unknown	EC> 1500 uS/cm or a tr	end of rising salinity levels	Not specified / unknown	Degradation of groundwater quality	
Australia Queensland	Pioneer Groundwater Management Area Water Sharing and Seasonal Wate Assignment Rules	Department of 20 Natural er Resources and Mines	12	Resource Management Plan	MDBA0184	not specified	Several - regional plan	Pioneer River Alluvium, Baker Creek Alluvium, Sandy Creek Alluvium, Alligator Creek Alluvium, Sandringham Creek Alluvium, Carmila Beds, Campwyn Beds, Urannah Comolex	s Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	water trading (within the management area)	Seasonal water assignment rules (pg.13; Section 15 of the Water Regulation 2002): seasonal water assignment is only allowed between or within certain water sharing groups	n Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL specified, no risks specified
Australia Queensland	Pioneer Groundwater Management Area Water Sharing and Seasonal Water Assignment Rules	Department of 20 Natural er Resources and Mines	12	Resource Management Plan	MDBA0184	not specified	Several - regional plan	Pioneer River Alluvium, Baker Creek Alluvium, Sandy Creek Alluvium, Alligator Creek Alluvium, Sandringham Creek Alluvium, Carmila Beds, Campwyn Beds, Urannah Complex	s Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.13, Section 15 of the Water Regulation 2002): limit on the volume of water allowed to be used for seasonal water assignment	n Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL specified, no risks specified
Australia Queensland	Pioneer Groundwater Management Area Water Sharing and Seasonal Water Assignment Rules	Department of 20 Natural er Resources and Mines	12	Resource Management Plan	MDBA0184	not specified	Several - regional plan	Pioneer River Alluvium, Baker Creek Alluvium, Sandy Creek Alluvium, Alligator Creek Alluvium, Sandringham Creek Alluvium, Carmila Beds, Campwyn Beds, Urannah Comolex	s Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.13; Section 15 of the Water Regulation 2002): seasonal water assignment will not be granted if there is potential to adversely affect other water users (includes groundwater quality) or the environment	n Not specified / unknown	not specified		Not specified / unknown	Interference impacts to existing users	No RCL specified
Australia Queensland	Pioneer Groundwater Management Area Water Sharing and Seasonal Wate Assignment Rules	Department of 20 Natural er Resources and Mines	12	Resource Management Plan	MDBA0184	not specified	Several - regional plan	Pioneer River Alluvium, Baker Creek Alluvium, Sandy Creek Alluvium, Alligator Creek Alluvium, Sandringham Creek Alluvium, Carmila Beds, Campwyn Beds, Urannah Compley	s Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Not specified / No Inknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Seasonal water assignment rules (pg.13; Section 15 of the Water Regulation 2002): seasonal water assignment will not be granted if there is potential to adversely affect other water users (includes groundwater quality) or the environment	Not specified / unknown	not specified		Not specified / unknown	Degradation of groundwater quality	No RCL specified
Australia Queensland	Burdekin groundwater management area water sharing rules	Department of 20 Environment and Resource Management	10	Resource Management Plan	MDBA0185	not specified	Alluvium (alluvial valley)	Burdekin River Alluvium, Barratta Creek Alluvium and Haughton River Alluviums	Not specified	Stock, domestic, irrigation	Not specified / N unknown u	Not specified / No unknown ur	lot specified / nknown	Not demonstrated	sustainable water use	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	Irrigation water permit rules (pg.7): specific rules for application of permits to take water	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	No RCL specified, no risks specified, type of management mechanism not specified
Australia South Australia	The Water Allocation Plan for the Mallee Prescribed Wells Area	South Australia 20 Murray-Darling Basin Natural Resources Management Brard	12	Resource Management Plan	MDBA0009	Murray Darling Basin	Porous rock	Murray Group Limestone Aqui	fer Deep groundwater (>200 m bgl)	irrigation, industrial, stock, domestic, town supply, recreational.	Renewable N (younger water; recharge occurring)	Non-connected W Lii	/ithin Allocated imit	Reasonably defined	not specified	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	Minimum distance between licensed wells	Not specified / unknown	not specified		Not specified / unknown	Interference impacts the potential to to existing users significantly interfere with the quality and quantity of water fro existing wells	* RCL not specified
Australia South Australia	The Water Allocation Plan for the Mallee Prescribed Wells Area	South Australia 20 Murray-Darling Basin Natural Resources Management	12	Resource Management Plan	MDBA0009	Murray Darling Basin	Parous rack	Murray Group Limestone Aquit	fer Deep groundwater (>200 m bgl)	irrigation, industrial, stock, domestic, town supply, recreational.	Renewable N (younger water; recharge occurring)	Non-connected W Li	/ithin Allocated imit	Reasonably defined	not specified	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows mentione but not incorporated in Plan	d water trading (within the management area)	Restrictions on inter-zone water trading enforced	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified	* RCL not specified * Risks not identified
Australia South Australia	The Water Allocation Plan for the Mallee Prescribed Wells Area	Board South Australia 20' Murray-Darling Basin Natural Resources Management Board	12	Resource Management Plan	MDBA0009	Murray Darling Basin	Porous rock	Murray Group Limestone Aquit	fer Deep groundwater (>200 m bgl)	irrigation, industrial, stock, domestic, town supply, recreational.	Renewable N (younger water; recharge occurring)	Non-cannected W	/ithin Allocated imit	Reasonably defined	not specified	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows mentione but not incorporated in Plan	d water quality indicators	Salinity targets	Not specified / unknown	Salinity increase of 2% of years above the baseline bores in the management as described in section 8	or more per year for five consecutive for more than 50% of the monitorin t area will trigger investigative actio 8.6 of this Plan	Not specified / g unknown n	Degradation of groundwater quality	* RCL derivation not specified
Australia South Australia	The Water Allocation Plan for the Mallee Prescribed Wells Area	South Australia 20' Murray-Darling Basin Natural Resources Management Board	12	Resource Management Plan	MDBA0009	Murray Darling Basin	Porous rock	Murray Group Limestone Aquit	fer Deep groundwater (>200 m bgl)	irrigation, industrial, stock, domestic, town supply, recreational.	Renewable N (younger water; recharge occurring)	Non-connected W Lii	/ithin Allocated imit	Reasonably defined	not specified	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows mentione but not incorporated in Plan	d trigger levels / temporary reductions	/ water level indicators	Understanding of scientifically established relationships	Water level recovery targ within 65 cm of previous Zone 11A), 50 cm of the	gets in 'designated areas'. E.g. to year (Border Sub-zone 9A North ar previous year (Border Zone 10A)	Not specified / id unknown	Not specified/identified	* RCL not specified * Risks not identified
Australia South Australia	Water Allocation Plan for th Noora Prescribed Wells Are	Para River Murray 200 aa Catchment 200 Water 200 Management 200 Board 200	01	Resource Management Plan	MDBA0010	Murray Darling Basin	Several - regional plan	Parilla Sand, Murray Group Limestone Aquifer, Renmark Group.	Deep groundwater (>200 m bgl)	primarily stock, but also mining, industrial irrigation.	Renewable C I, (younger water; recharge occurring)	Connected Be	elow Allocated imit	Reasonably defined	GDEs	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows mentione but not incorporated in Plan	d distance rules for bores	proposed extraction must be greater than 3 km from existing licensed bores within the Malee PWA or Victoria	Not specified / unknown	not specified		Not specified / unknown	Interference impacts potential interference to existing users with the Mallee Prescribed Wells Area.	 * RCL not specified * Management mechanism derivation not defined



																										Clarification / Verification Requirements of
Location information			Report Referenc	e Document	GHD Catalogue	Groundwater			Aquifer depth /	What are the main uses of groundwater in this management	in GW	-SW Level	Le kr I of sy	evel of ke nowledge of er ystem pi	hat are the litery growing the second	ls a groundwater monitoring program in	Are potential GDEs	Are Cultural Flow values	Mechanism	wanagement wechanisms	How are these	Resource Condition Limit (RCL)	How was the RC	n.		Jurisdictions
Country State/Region Australia South Australia	Document Title Water Allocation Plan for th Noora Prescribed Wells Are	Author P River Murray a Catchment Water Management	Date No. 2001	Type Resource Management Plan	MDBA0010	Basin Murray Darling Basin	Kind of Aquifer Several - regional plan	Aquifer Name Parilla Sand, Murray Group Limestone Aquifer, Renmark Group.	Interval Deep groundwater (>200 m bgl)	area? primarily stock, but also mining, industrial irrigation.	Renewable? con Renewable Con I, (younger water; recharge occurring)	nected Below Limit	w Allocated Ro	ehaviour id easonably G efined	entified? p DEs Y g n	place? Yes, groundwater monitored periodically	identified? Yes; monitored	in issue? Cultural flows mentioner out not incorporated in Plan	Type d zonal limits on entitlements	Mechanism Descriptions • Zoned management areas established, with the Murray Group Limestone also managed through the Groundwater (Border Agreement) Act 1985, conjunctively by SA and Vic.	mechanisms derived? Non-technical means (nominally adopted)	What is the RCL? not specified	derived? Not specified / unknown	Cellegory Interference impacts to existing users	Risk Descriptions potential interference with the Mallee Prescribed Wells Area	* RCL not specified
Australia South Australia	Water Allocation Plan for th Noora Prescribed Wells Are	Board P River Murray a Catchment Water Management	2001	Resource Management Plan	MDBA0010	Murray Darling Basin	Several - regional plan	Parilla Sand, Murray Group Limestone Aquifer, Renmark Group.	Deep groundwater (>200 m bgl)	primarily stock, but also mining, industrial irrigation.	Renewable Con I, (younger water; recharge	nected Belov Limit	w Allocated R de	easonably G efined	DEs Y	Yes, groundwater monitored	Yes; monitored	Cultural flows mentioner out not incorporated in Plan	d trigger levels / temporary reductions	water allocated for irrigation on the basis of an efficiency trigger level. Irrigation water use efficiency of >70%	Not specified / unknown	not specified	Not specified / unknown	Interference impacts to existing users	potential interference with the Mallee Prescribed Wells	* RCL derivation not specified * mechanism derivation not specified
Australia South Australia	The Water Allocation Plan for the Marne Saunders Prescribed Water Resource	Board South Australia Murray-Darling s Basin Natural	2010	Resource Management Plan	MDBA0011	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer	Shallow groundwater (<200m bgl) e.g	domestic, stock, irrigation, industrial and recreational	Renewable Con (younger water; recharge	nected Not s unkno	specified / R own de	easonably er efined w	nvironmental N ater reserves g	Yes, groundwater monitored	Yes; monitored	Cultural flows ncorporated in Plan	zonal limits on entitlements	200 m radius buffer zone established (based on pump test results) that restricts new bore installations for extraction	Understanding of scientifically established	not specified	Not specified / unknown	Interference impacts to existing users	manage interference between users	
Australia South Australia	Area The Water Allocation Plan for the Marne Saunders	Resources Management Board South Australia Murray-Darling	2010	Resource Management	MDBA0011	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer	stock/domestic productive use Shallow groundwater	domestic, stock, irrigation, industrial	occurring) Renewable Con (younger water;	nected Not s	specified / R	easonably er efined w	P ivironmental Y ater reserves g	periodically Yes, groundwater	Yes; monitored	Cultural flows	zonal limits on entitlements	200 m radius buffer zone established (based on pump test results) that restricts new bore installations for extraction	relationships Understanding of scientifically	not specified	Not specified / unknown	Degradation of groundwater quality	salinising fresher groundwater by	
Australia South Australia	Prescribed Water Resource Area	s Basin Natural Resources Management Board	2011	Plan	MDB40012	Murray Darling	Porous rock	Murray Group Limestone	(<200m bgl) e.g stock/domestic productive use	and recreational	recharge occurring)	specified / Below	w Allocated R	esconshiv m	n P	monitored periodically	Yes: but not	- Sultural flows	zonal limits on	Restrictions on intercome water tradion enforced	established relationships	not snerified	Not specified /	Hydrogenlogical	drawing in adjacent saltier groundwater	* RCI not specified
	Peake, Roby and Sherlock Prescribed Wells Area	Murray-Darling Basin Natural Resources Management Board		Management Plan		Basin		Aquifer, Buccleuch Formation	groundwater (<200m bgl) e.g stock/domestic productive use	stock and town water supply purposes	(younger water; unk recharge occurring)	nown Limit	: de	efined ac	quifer integrity g n P	groundwater monitored periodically	monitored	ncorporated in Plan	entitlements		unknown		unknown	integrity impact		* GW-SW connectivity not mentioned
Australia South Australia	Water Allocation Plan for th Peake, Roby and Sherlock Prescribed Wells Area	 South Australia Murray-Darling Basin Natural Resources Management 	2011	Resource Management Plan	MDBA0012	Murray Darling Basin	Porous rock	Murray Group Limestone Aquifer, Buccleuch Formation	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, agriculture, stock and town water supply purposes	Renewable Not (younger water; unk recharge occurring)	specified / Belov nown Limit	w Allocated Ri	easonably m efined ad	aintaining Y quifer integrity g n P	Yes, groundwater monitored periodically	Yes; but not monitored	Cultural flows ncorporated in Plan	distance rules for bores	* Water shall not be allocated within 1km of a GDE	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		* RCL derivation not specified * GW-SW connectivity not mentioned
Australia South Australia	Draft Water Allocation Plan for the Eastern Mount Lofty Ranges Prescribed Water Resources Area Part 1	Board South Australia Murray-Darling Basin Natural Resources	2011	Resource Management Plan	MDBA0013	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer, Permian Sands Aquifer, Quaternary Aquifer	Shallow groundwater (<200m bgl) e.g stock/domestic	irrigation, industrial use, intensive animal production, environmental, stock	Renewable Con (younger water; recharge occurring)	nected Not s unkn	specified / R own de	easonably w efined de ec pr	ater 'i ependent g cosystem n rotection p	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows ncorporated in Plan	distance rules for bores	Buffer zones around sensitive areas to reduce water table drawdown. Defined radii for well and environmental buffer zones (in metres) for underground water management zones.	Understanding of scientifically established relationships	not specified - inferred to be groundwater level indicators	Understanding of scientifically established relationships	f Impact to GDEs		* Level of development not specified
Australia South Australia	Draft Water Allocation Plan for the Eastern Mount Lofty Ranges Prescribed Water	Management Board South Australia Murray-Darling Basin Natural	2011	Resource Management Plan	MDBA0013	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer, Permian Sands Aquifer,	Shallow groundwater (<200m bgl) e.g	and recreational use irrigation, industrial use, intensive animal production,	Renewable Con (younger water; recharge	nected Not s unkn	specified / R own de	easonably w efined de ec	ater Y apendent g cosystem n	Yes, groundwater monitored	Yes; monitoring status	Cultural flows ncorporated in Plan	trigger levels / temporary reductions	Selected allocation restrictions in high intensity use zones	Understanding of scientifically established	where the total volume allocated in the area exceeds four times the mean annual recharge rate for the area, pursuant the following formula: AV > RRMZ x 4 x 1.13	Detailed scientifie to study	c Hydrogeological integrity impact		* Level of development not specified
Australia South Australia	Resources Area Part 1 Draft Water Allocation Plan for the Eastern Mount Lofty	Resources Management Board South Australia Murray-Darling	2011	Resource Management	MDBA0013	Murray Darling Basin	Several - regional plan	Quaternary Aquifer Fractured Rock and Murray Group Limestone Aquifer,	stock/domestic productive use Shallow groundwater	environmental, stock and recreational use irrigation, industrial use, intensive animal	Renewable Con (younger water;	nected Not s unkn	specified / R	easonably w efined de	ater Y	periodically Yes, groundwater	unknown Yes; monitoring	Cultural flows ncorporated in Plan	zonal limits on entitlements	sub-zone management based on varying aquifers throughout the region.	Understanding of scientifically	managing the locations where transferred allocation can be taken or where new wells can be constructed, to minimise	Understanding of scientifically	Interference impacts to existing users		* Level of development not specified
	Ranges Prescribed Water Resources Area Part 1	Basin Natural Resources Management Board		Plan				Permian Sands Aquifer, Quaternary Aquifer	(<200m bgl) e.g stock/domestic productive use	 production, environmental, stock and recreational use 	recharge occurring)			ec pr	cosystem n rotection p	monitored periodically	status unknown				established relationships	impacts to neighbouring water users and the environment.	established relationships			
Australia South Australia	Draft Water Allocation Plan for the Eastern Mount Lofty Ranges Prescribed Water Resources Area Part 2	South Australia Murray-Darling Basin Natural Resources Management Board	2011	Resource Management Plan	MDBA0014	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer, Permian Sands Aquifer, Quaternary Aquifer	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, industrial use, intensive animal production, environmental, stock and recreational use	Renewable Con (younger water; recharge occurring)	nected Not s unkno	specified / R own de	easonably w efined de ec pr	ater Y apendent g cosystem n rotection p	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows ncorporated in Plan	distance rules for bores	buffers assigned to existing bores and environmental assets and in high intensity use zones	Non-technical means (nominally adopted)	not specified	Not specified / unknown	Interference impacts to existing users		* Level of development not specified
Australia South Australia	Draft Water Allocation Plan for the Eastern Mount Lofty Ranges Prescribed Water Resources Area Part 2	South Australia Murray-Darling Basin Natural Resources Management Board	2011	Resource Management Plan	MDBA0014	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer, Permian Sands Aquifer, Quaternary Aquifer	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, industrial use, intensive animal production, environmental, stock and recreational use	Renewable Con (younger water; recharge occurring)	nected Not s unkn	specified / R own de	easonably w efined de ec pr	ater Y apendent g cosystem n rotection p	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows ncorporated in Plan	distance rules for bores	buffers assigned to existing bores and environmental assets and in high intensity use zones	Non-technical means (nominally adopted)	not specified	Not specified / unknown	Impact to GDEs		* Level of development not specified
Australia South Australia	Draft Water Allocation Plan for the Eastern Mount Lofty Ranges Prescribed Water Resources Area Part 2	South Australia Murray-Darling Basin Natural Resources Management Board	2011	Resource Management Plan	MDBA0014	Murray Darling Basin	Several - regional plan	Fractured Rock and Murray Group Limestone Aquifer, Permian Sands Aquifer, Quaternary Aquifer	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, industrial use, intensive animal production, environmental, stock and recreational use	Renewable Con (younger water; recharge occurring)	nected Not s unkn	specified / R own de	easonably w efined de pr	ater Y ependent g cosystem n rotection p	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows ncorporated in Plan	water trading (within the management area)	restrictions on water trading based on salinity thresholds	Not specified / unknown	water of >1600 mg/L to wells with water of <1400 mg/L	Understanding of scientifically established relationships	Degradation of groundwater quality		* Level of development not specified
Australia South Australia	Water Allocation Plan for th Angas Bremer Prescribed Wells Area	e River Murray Catchment Water Management Board	2001	Resource Management Plan	MDBA0015	Murray Darling Basin	Several - regional plan	a shallower, unconfined aquifer, and a deeper, confined aquifer.	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, town water supply, stock and domestic, recreational industrial	Renewable Con (younger water; I, recharge occurring)	nected Belov Limit	w Allocated R	easonably su efined gr us	ustainable Y roundwater g se n P	Yes, groundwater monitored periodically	Yes; but not monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Irrigation water available to crop divided by Water received at the field inlet = >85% for allocation for irrigation	s Not specified / unknown	not specified	Not specified / unknown	Not specified/identified		 RCL derivation not specified Risks not specified
Australia South Australia	Sustainable Extraction Limi Derived from the Recharge Risk Assessment Method - South Australia	s CSIRO and SKM	2010 1835-095X	Technical	MDBA0062	all within SA	Several - regional plan	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Stock, domestic	Renewable Con (younger water; recharge occurring)	nected Withi Limit	in Allocated W (b n m	/ell defined G vased on S umeric co vodel)	DEs, GW- N W u nnectivity	Not specified / unknown	Yes; monitoring status unknown	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	Uses risk matrix to assess risk with respect to key environmental assets, key eccsystem function, productive base and key environmental	Specific use of groundwater is not covered, groundwater monitoring not specified, management mechanisms not identified
Australia South Australia	Water Allocation Plan for th Tintinara Coonalpyn Prescribed Wells Area	e South East Natural Resources Management Board	2011	Resource Management Plan	MDBA0086	Murray Darling Basin	Several - regional plan	Murray Group Limestone, Padthaway Formation, Bidgewater Formation, Buccleuch Formation, and Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation	Not specified / Con unknown	nected Belov Limit	w Allocated R	easonably G prined pr qr gr m sc hr in pr	DEs, otecting oundwater ality, aintaining baks and rock oles for digenous oples		Yes; monitoring status unknown	Cultural flows ncorporated in Plan	water trading (within the management area)	local access rules to protect water quality during Managed Aquifer Recharg	e Not specified / unknown	TDS <1500 mg/L	Non-technical means (nominal) adopted)	Degradation of y groundwater quality	oucomes	* RCL determination not defined
Australia South Australia	Water Allocation Plan for th Tintinara Coonalpyn Prescribed Wells Area	 South East Natural Resources Management Board 	2011	Resource Management Plan	MDBA0086	Murray Darling Basin	Several - regional plan	Muray Group Limestone, Padthaway Formation, Bidgewater Formation, Buccleuch Formation, and Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation	Not specified / Con unknown	nected Belov Limit	w Allocated R	easonably G afined pr gr qr sc ht in pr	DEs, rotecting oundwater uality, aintaining paks and rock oles for digenous coples		Yes; monitoring status unknown	Cultural flows ncorporated in Plan	trigger levels / temporary reductions	local access rules to protect water levels in the confined aquifer	Not specified / unknown	* a mean increase in the unconfined water table of greater than 0.2 metres per year * a mean increase in the salinity of the confined aquifer greater than 2% based on spatial location * peak drawdown thresholds (b/w 2 m and 10 m)	Not specified / unknown	Not specified/identified		 RCL determination not defined risk not specified
Australia South Australia	Water Allocation Plan for th Tintinara Coonalpyn Prescribed Wells Area	e South East Natural Resources Management Board	2011	Resource Management Plan	MDBA0086	Murray Darling Basin	Several - regional plan	Muray Group Limestone, Padhaway Formation, Bidgewater Formation, Buccleuch Formation, and Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation	Not specified / Con unknown	nected Belov Limit	w Allocated R	easonably G efined pr gr qr sc ht in pr	DEs, rotecting roundwater Jality, aintaining Jaks and rock oles for digenous aoples		Yes; monitoring status unknown	Cultural flows ncorporated in Plan	trigger levels / temporary reductions	local access rules for protecting GDEs	Not specified / unknown	0.05 metres/year groundwater level decline in an observatio bore within 16km2 of the GDE.	n Not specified / unknown	Impact to GDEs	Depletion of GDE and groundwater-surface water interactions for cultural and environmental values	* RCL determination not defined
Australia Queensland	Water Resource (Border Rivers) Plan 2003	Queensland Government	2011	Resource Management Plan	MDBA0125																					
Australia Queensiand	Plan 2003 Water Resource (Warrego,	Government	2011	Management Plan Resource	MDBA0126																					
	Paroo, Bulloo and Nebine) Plan 2003 Water Resource (Condamir and Balanno) Plan 2004	Government e Queensland		Management Plan Resource	MDBA0128																					
	and Descrifte) Fially 2004	Soveniment		Plan																						



NTS PEOPLE PERFORMANCE

MDBA: Rules and Resource Condition Limits Literature Review Compilation

																			_							Clarification / Verification
Location information											Contextual information	ion			Differences the	line	-			Management Mechanisms		Resource Condition Limit (RCL)	-1	Ri	sk	Requirements of Jurisdictions
					GHD					What are the main uses of groundwater	in			Level of knowledge of	key environmental	groundwater monitoring	Are potential									
Country State/Region	Document Title	Author	Repo Date No.	ort Reference Docum Type	ent Catalogu Number	e Groundwate Basin	r Kind of Aquifer	Aquifer Name	Aquifer depth / interval	this management area?	GI Renewable? co	W-SW onnectivity?	Level of Development?	system behaviour	priorities identified?	program in place?	GDEs identified?	Are Cultural Flow valu an issue?	es Mechanism Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?	How was the RC derived?	Category	Risk Descriptions	
Australia South Australia	Water Resource (Cooper	the South East Natural Resources Management Board	2011	Resourc Manage Plan Resourc	e MDBA008 ment e MDBA013	36 Murray Darlı Basin 30	ng Several - regional plan	Murray Group Limestone, Padhaway Formation, Bridgewater Formation, Buccleuch Formation, and Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Ingation	Not specified / Co unknown	onnected	Below Allocated Limit	defined	GUEs, protecting groundwater quality, maintaining soaks and rock holes for indigenous peoples	k	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water quality indicators	local access rules for protecting water quality	Not specified / unknown	>1% of 2% mean increase in groundwater salmity per yea in a representative observation bore within a 16 km2 circle	Not specified / unknown	Degradation of groundwater quality		* KCL determination not
Australia South Australia	Creek) Plan 2011 Water Allocation Plan for Tintinara Coonalpyn Prescribed Wells Area	Government the South East Natural Resources Management Board	2011	Manage Plan Resourd Manage Plan	e MDBA008 ment	36 Murray Darli Basin	ng Several - regional plan	Murray Group Limestone, Padthaway Formation, Bridgewater Formation, Buccleuch Formation, and Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation	Not specified / Co unknown	ionnected	Below Allocated Limit	d Reasonably defined	GDEs, protecting groundwater quality, maintaining soaks and rock holes for indigenous peoples	k	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water trading (within the management area)	local access rules for protecting water quality. rules against water trading from the confined aquifer to the confined aquifer	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality		* RCL determination not defined
Australia Queensland	Water Resource (Georgir and Diamantina) Plan 20	a Queensland 04 Government	2011	Resourd Manage Plan	e MDBA013 ment	32 not specified	d Not specified	not specified	Not specified	not specified	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Not demonstrated	Sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows incorporated in Plan	not specified		Not specified / unknown	not specified	Not specified / unknown			Risks not specified, RCL not specified, management mechanisms not specified
Australia South Australia	Water Allocation Plan for Tatiara Prescribed Wells Area	the South East Natural Resources Management Board	2012	Resourc Manage Plan	e MDBA009 ment	91 Murray Darli Basin	ng Several - regional plan	Murray Limestone group, Coomandook, Bridgewater, Padthaway Formation and the Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, vineyard	Renewable Co (younger water; recharge occurring)	ionnected	Over Allocated	Reasonably defined	GW-SW connectivity, Salinity, GDEs influence between aquifer systems	Yes, groundwater s, monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	local access rules for protecting GDEs	Not specified / unknown	>0.05 metres/year groundwater level decline in an observatio bore within 16km2 of the GDE.	on Not specified / unknown	Impact to GDEs	Depletion of GDE and groundwater-surface water interactions for cultural and environmental values	
Australia South Australia	Water Allocation Plan for Tatiara Prescribed Wells Area	the South East Natural Resources Management Board	2012	Resourd Manage Plan	e MDBA009 ment	91 Murray Darli Basin	ng Several - regional plan	Murray Limestone group, Coomandook, Bridgewater, Padthaway Formation and the Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, vineyard	Renewable Co (younger water; recharge occurring)	Connected	Over Allocated	Reasonably defined	GW-SW connectivity, Salinity, GDEs influence between aquifer systems	Yes, groundwater s, monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed water quality indicators	local access rules for protecting water quality	Not specified / unknown	>1% or 2% mean increase in groundwater satinity per year in a representative observation bore within a 16 km2 circle	n Not specified / unknown	Degradation of groundwater quality		
Australia South Australia	Water Allocation Plan for Tatiara Prescribed Wells Area	the South East Natural Resources Management Board	2012	Resourd Manage Plan	e MDBA009 ment	91 Murray Darli Basin	ng Several - regional plan	Murray Limestone group, Coomandook, Bridgewater, Padthaway Formation and the Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, vineyard	Renewable Co (younger water; recharge occurring)	Connected	Over Allocated	Reasonably defined	GW-SW connectivity, Salinity, GDEs influence between aquifer systems	Yes, groundwater s, monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed water quality indicators	limits on granting of new water allocations (mechanisms) to not exceed an extraction concentration level in any 16km2 circle (RCI)	 Understanding of scientifically established relationships 	Volumetric extraction threshold of 1.25 x annual average vertical recharge	Understanding o scientifically established relationships	Degradation of groundwater quality		
Australia South Australia	Water Allocation Plan for Tatiara Prescribed Wells Area	the South East Natural Resources Management Board	2012	Resour Manage Plan	e MDBA009 ment	91 Murray Darli Basin	ng Several - regional plan	Murray Limestone group, Coomandook, Bridgewater, Padthaway Formation and the Renmark Group	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, vineyard	Renewable Co (younger water; recharge occurring)	Connected	Over Allocated	Reasonably defined	GW-SW connectivity, Salinity, GDEs influence between aquifer systems	Yes, groundwater s, monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	local access rules to protect aquiler integrity	Not specified / unknown	identified adverse effect on aquifer structural integrity	Not specified / unknown	Hydrogeological integrity impact		
Australia South Australia	Water Allocation Plan for Padthaway Prescribed W Area	the South East ells Natural Resources Management Board, SA	2005	Resourd Manage Plan	e MDBA009 ment	95 Otway Basir	n Porous rock	Padthaway Formation and the Bridgewater Formation	Shallow r groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, industry, recreational use and public water supply, stock and domestic, industrial	Renewable Co (younger water; recharge occurring)	Connected	Over Allocated	Reasonably defined	GDE protectio	n Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	distance rules for bores	setback distance from GDEs for new bores calculated using 'DE equation' (p10)	Understanding of scientifically established relationships	water level decline at the GDE should not exceed 0.05m	Understanding o scientifically established relationships	Impact to GDEs		
Australia South Australia	Water Allocation Plan for Padthaway Prescribed W Area	the South East ells Natural Resources Management Board SA	2005	Resourd Manage Plan	e MDBA009 ment	95 Otway Basir	n Porous rock	Padthaway Formation and the Bridgewater Formation	Shallow r groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, industry, recreational use and public water supply, stock and domestic, industrial	Renewable Co (younger water; recharge occurring)	Connected	Over Allocated	Reasonably defined	GDE protectio	n Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water quality indicators	limits on granting of new water allocations (mechanisms) to not exceed an extraction concentration level in any 16km2 circle (RCI)	Understanding of scientifically established relationships	Concentration limit of 1.25 x annual average vertical recharg	e Understanding o scientifically established relationships	f Degradation of groundwater quality		
Australia South Australia	Morambro Creek Water Allocation Plan	South East Natural Resources Management Board	2006	Resourd Manage Plan	e MDBA010 ment	00 not specified	d Several - regional plan	Several - regional plan	Not specified	Irrigation, stock, domestic	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	water dependent ecosystems, GW-SW connectivity, sustainable water use	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Not specified/identified		no specific risks identified, RCL not specified
Australia South Australia	Barossa Prescribed Wate Resources Area Water Allocation Plan	r The Adelaide Mount Lofty Ranges Natur Resources Management Board	and 2009 al	Resourd Manage Plan	e MDBA010 ment	01 not specified	d Several - regional plan	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, stock, domestic, industrial	Renewable Co (younger water; recharge occurring)		Below Allocated Limit	d Reasonably defined	GDEs, GW- SW connectivity, Groundwater quality, sustainable water use	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	not specified	Water dhouse films of an orbital data ked	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality		no specific risks identified, RCL not specified
Australia South Australia	Northern Adelaide Plains Prescribed Wells Area	Adelaide and Barossa Catchment Water Management	2000	Manage Plan	ment	2 nor specineo	J Severar - regionar plan	Several - regional plan	Not specified	domestic	(younger water; recharge occurring)	Junnecieu	Limit	defined	SW connectivity	groundwater monitored periodically	nes, monitoring status unknown	considered/mentioned	по: specilieu	water and areo based on saminy uneshold	unknown	3000 mg/L TDS	unknown	specified/identified		RCL derivation not specified, management mechanism not specified
Australia South Australia	Water Allocation Plan McLaren Vale Prescribed Wells Area	Board The Adelaide Mount Lofty Ranges Natur Resources Management Board	and 2007 al	Resourd Manage Plan	e MDBA010 ment	13 not specified	d Several - regional plan	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Irrigation, stock, domestic J.	Renewable Co (younger water; recharge occurring)	Connected	Below Allocated Limit	d Reasonably defined	GW-SW connectivity, GDEs	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	water trading (within the management area)	Conditions for transfer of water allocations. Water allocations shall not be transferred to a point of taking which is 300m or less from a well used for draining or 500m where the area is sensive (water level has fallen 500m) or more over 3 years or salinity has increased by 50 mgL if more over thre years)	Not specified / unknown n ae	not specified	Not specified / unknown	Not specified/identified		Management mechanisms derivation not specified, specific risks not specified, RCL derivation not specified
Australia South Australia	Water Allocation Plan for Clare Valley Prescribed Water Resource Area	the Northern York Natural Resources Management Board	a 2009 978-0	0-9806143-1-2 Resource Manage Plan	e MDBA010 ment	04 not specified	d Several - regional plan	Several - regional plan	Not specified	Irrigation, stock, domestic, town wate	Renewable Co r (younger water; recharge occurring)	onnected	Not specified / unknown	Reasonably defined	GW-SW connectivity, GDEs	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Not specified/identified		RCL not specified, risks not specified, management mechanism not specified
Australia South Australia	Water Allocation Plan Southern Basins Prescrib Wells Area	Eyre Region ed Water Resour Planning Committee	2000 ces	Resourd Manage Plan	e MDBA010 ment	05 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, mining/industry	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Cease to allocation of water that will cause or likely to cause a negative change in salinity	Not specified / unknown	If salinity at point of extraction exceeds baseline salinity by more than 100 mg/L	Not specified / unknown	Degradation of groundwater quality		specific risks not specified
Australia South Australia	Water Allocation Plan Southern Basins Prescrib Wells Area	Eyre Region ed Water Resour Planning Committee	2000 Ces	Resourd Manage Plan	e MDBA010 ment	05 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, mining/industry	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Cease to allocation of water that will cause or likely to cause a reduction in aquifer thickness	Not specified / unknown	If saturated thickness of the aquifer reduces at proposed poin of extraction by 10% or more within 12 months	nt Not specified / unknown	Hydrogeological integrity impact		specific risks not specified
Australia South Australia	Water Allocation Plan Southern Basins Prescrib Wells Area	Eyre Region ed Water Resour Planning Committee	2000 ces	Resourc Manage Plan	e MDBA010 ment	05 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, mining/industry	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Cease to allocation of water that will cause or likely to cause a reduction in aquifer thickness within radial extent of extraction point	Not specified / unknown	Cease to allocation of water that will cause or likely to cause reduction in aquifer thickness within radial extent of extraction point	a Not specified / n unknown	Hydrogeological integrity impact		specific risks not specified
Australia South Australia	Water Allocation Plan Southern Basins Prescrib Wells Area	Eyre Region ed Water Resour Planning Committee	2000 Ces	Resourd Manage Plan	e MDBA010 ment	05 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, mining/industry	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	water trading (within the management area)	Restrictions on inter-zone trading	Not specified / unknown	not specified	Not specified / unknown	Not specified/identified		specific risks not specified, RCL not specified
Australia South Australia	Water Allocation Plan for Musgrave Prescribed We Area	the Eyre Region Ils Water Resour Planning Committee	2001 ces	Resourc Manage Plan	e MDBA010 ment	06 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, industry, mining	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	5.3.12 Water shall not be allocated if rate of extraction should cause increases in salinity 100 mg/L above the baseline salinity (means the existing salinity of the underground water at the proposed point of extraction procession of the salinity of t	Not specified / unknown an)	If salinity at point of extraction exceeds baseline salinity by more than 100 mg/L	Not specified / unknown	Degradation of groundwater quality		RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Allocation Plan for Musgrave Prescribed We Area	the Eyre Region Ils Water Resour Planning Committee	2001 ces	Resourd Manage Plan	e MDBA010 ment	06 Eyre Basin	Several - regional plan	Several - regional plan	Not specified	Reticulated public water supply, stock, domestic, irrigation, industry, mining	Renewable Co (younger water; recharge occurring)	Connected	Not specified / unknown	Reasonably defined	sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows not considered/mentioned	trigger levels / temporary reductions	5.3.14 Water shall not be allocated if rate of extraction will reduce the saturated thickness of the aquifer at the proposed point of extraction	Not specified / unknown	If saturated thickness of the aquifer reduces at proposed poin of extraction by 10% or more within 12 months	nt Not specified / unknown	Hydrogeological integrity impact		RCL derivation not specified, specific risks not specified, mechanism derivation not specified



																				Clarification / Verification Requirements of
Location information		GHD			What are the main uses of groundwater in	n n n n n n n n n n n n n n n n n n n		Level of knowledge of	What are the Is key gr environmental m	sa roundwater Are	e tential			Management Mechanisms		Resource Condition Limit (RCL)			RISK	Jurisdictions
Country State/Region	Document Title Author Date Water Allocation Plan for the Evre Region 2001	Report Reference Document Catalogue No. Type Number Resource MDBA0106	Groundwater Basin Kind of Aquifer	Aquifer Name Aq Several - regional plan No	terval area?	Renewable? GW-SW connectivity?	Level of Development?	system p behaviour i Reasonably	priorities pridentified? pla sustainable Ye	rogram in GE lace? ide	DEs Are C antified? an iss	Cultural Flow values sue?	Mechanism Type trigger levels /	Mechanism Descriptions 5.3.15 Cease to allocation of water that will cause or likely to cause a	How are these mechanisms derived?	What is the RCL? If saturated thickness of the aquifer within a 500m radius at	How was the RCI derived?	L Category Hydrogeological	Risk Descriptions	RCL derivation not specified
	Musgrave Prescribed Wells Water Resources Area Planning Committee	Management Plan			water supply, stock, domestic, irrigation, industry, mining	(younger water; recharge occurring)	unknown	defined (water use, gr GDEs, GW- m SW pe connectivity	roundwater mo nonitored eriodically	onitored consi	idered/mentioned	temporary reductions	reduction in aquifer thickness within radial extent of extraction point	unknown	proposed point of extraction reduces by 5% or more within 12 months	unknown	integrity impact		specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Allocation Plen for the South Australian 2009 Far North Prescribed Wells Aid Lands Natural Area Resources Management Board	Resource MDBA0107 Management Plan	Great Artesian Several - regional plan Basin	Several - regional plan No	tt specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	Renewable Connected (younger water; recharge occurring)	Within Allocated Limit	Reasonably (defined (GW-SW Ye connectivity, gr GDEs m pe	'es, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring incor atus known	ural flows rporated in Plan	distance rules for bores	6.2.12 Water shall not be allocated for any new well established within a 5 km radius of any GAB springs identified in the SA Geodata data base	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Allocation Plen for the South Australian 2009 Far North Prescribed Wells And Lands Area Natural Resources Management Board	Resource MDBA0107 Management Plan	Great Artesian Several - regional plan Basin	Several - regional plan No	tt specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	Renewable Connected (younger water; recharge occurring)	Within Allocated Limit	Reasonably (defined (GW-SW Ye connectivity, gr GDEs m pe	res, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring incor atus iknown	ural flows rporated in Plan	drawdown limit	5.6.2.13 Volume of water allocated at any proposed wells does not cause excessive drawnew, volumes of water greater may be aducated if EIR show it will not have an unacceptable impact on spring ecology.	Not specified / v unknown	Cumulative drawdown exceeds 0.5m on the potentiometric surface of the Cadna-Owie-Aglebuckina aquifer	Not specified / unknown	Impact to GDEs	Impact on spring ecology	RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Altocation Plan for the South Australian 2009 Far North Prescribed Wells Arid Lands Arid Lands Natural Resources Management Board	Resource MDBA0107 Management Plan	Grazi Artesian Several - regional plan Basin	Several - regional plan No	t specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	Renewable Connected (younger water; recharge occurring)	Within Allocated Limit	Reasonably (defined (GW-SW Ye connectivity, gr GDEs m pe	res, Ye roundwater mo nonitored sta eriodically un	s; Cultu onitoring incor atus known	ural flows rporated in Plan	trigger levels / temporary reductions	6.2.19 The plan that not cause the salinity to increase by more than 10% of the mean	Not specified / unknown	Taking and use of water at new wells shall no cause a mean increase in salinity of groundwater greater than 10% (measured over the proceeding 5 years) at the point of taking	Not specified / unknown	Degradation of groundwater quality	,	RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Allocation Plan for the South Australian 2009 Far North Prescribed Wells And Lands Area Prescribed Wells And Lands Resources Menagement Board	Nesource MDEAU10/ Management Plan	Great Artesian Several - regional plan Basin	Several - regional plan No	t specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	Renewable Connected (younger water; recharge occurring)	Within Allocated	Reasonably (defined (GW-SW Ye connectivity, gr GDEs m pe	es, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring incor atus Iknown	ural flows rporated in Plan	drawdown limit	5 4 2:0, 6 2:23, 6 2:28. When allocation is greater than 10% of the protocted comulative drawnow, water shall only be allocated in consultation with the appropriate interstate jurisdiction, and agreement of the South Australian Minister	Not specified / unknown	Predicted cumulative drawdown is in excess of 10% of the potentiometric surface measured above ground level	Not specified / unknown	Hydrogeological integrity impact		RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	Water Allocation Plan for the South Australian 2009 Far North Prescribed Wells And Lands Area Natural Resources Management Board	Nesource MDEAU107 Management Plan	Great Artesan Several - regional plan Basin	Several - regional plan No	t specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	Kenewable Connected (younger water; recharge occurring)	Within Allocated Limit	Reasonably (defined (GW-SW Ye connectivity, gr GDEs m pe	es, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring incor atus iknown	ral flows rporated in Plan	drawdown limit	5 4 22, 6 22, 6 22, 8 VHzep proposed new well results in a predicted cumulative drawdown greater finan from on the potentionetic surface water may be allocated and used if an EIR has been prepared demonstrating that shall not have an uncoexplate/impact on the ecology of springs within the underground water zone of influence around that well	Not specified / unknown is	Predicted cumulative drawdown is greater than 1 m on the potentiometric surface measured on the aquifer boundary	Not specified / unknown	Impact to GDEs	Impact on spring ecology	RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia South Australia	water Anlocation Frank or the South Australian 2009 Far North Prescribed Wells And Lands Area Natural Resources Menagement Board	Resource MUEAUTU/ Management Plan	Great Antesian Severai - regional plan Basin	Severa - regional plan No	x specified Stock and domestic, town water supplies, petroleum, mining, power generation, industrial and tourism, springs, road maintenance, wetlands and recreational	kenewabie Connectea (younger water; recharge occurring)	Limit	Reasonably (defined (GW-SW Te connectivity, gr GDEs m pe	es, Ye roundwater mo nonitored sta eriodically uni	is; Cultu onitoring incor atus known	urai nows rporated in Plan	(within the management area)	kules arouno traong transiennig water alocations	Not specified / unknown	nx specined	Not specified / unknown	Not specified/identified	impact on spring ecology	RCL derivation not specified, specific risks not specified, mechanism derivation not specified
Australia Tasmania	Boobyaila River Catchmen Department of 2012 Water Management Plan Pirmary Industries, Parks, Water and Environment	Resource MDBA0151 Management Plan	Not Specified Not specified	not specified No	t specified not specified	Not specified / Connected unknown	Not specified / unknown	Not E demonstrated o r	Replenishment No of groundwater un resources, water dependent ecosystems, baseflows	lot specified / GE nknown ide	DEs not Cultu antified consi	ural flows not idered/mentioned	nat specified		Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows		RCL derivation not specified, risks not specified, management mechanisms not specified, groundwater use not specified
Australia Tasmania	Groundwater and Surface Department of 2011 Water Connectivity in Primary Tasmania Industries, Parks, Water and Environment	Groundwater Resource MDBA0152 Maragement Management Report of Serties Plan Report no. GW 2011/03 ISSN 2200- 8896	Several - regional Several - regional plan plan	not specified Sh grru (<2 sto pro	iallow irrigated agriculture oundwater 200m bgl) e.g. ock/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Well defined ((based on o numeric o model) o i	GW-SW No connectivity, Gr groundwater m quality, ne groundwater pl levels, GDEs	lo program. Ye sroundwater mo nonitoring sta etwork in uni lace	is; Cultu onitoring but n atus Plan iknown	ural flows mentioned not incorporated in	trigger levels / temporary reductions	Cease to take period if minimum flow trigger levels are exceeded	Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows	Risk to surface water from groundwater extraction assessed using baseflow index and ratio of groundwater extraction to diffuse recharge	RCL not specified, management mechanism derivation not specified
Australia Tasmania	Groundwate and Surface Popartment of 2011 Water Connectivity in Industriae, Parks, Water and Environment	Grundvetter Resource MDBA0152 Management Management Report Sories Plan Report no GW 2011/03 ISSN 2200- 8896	Several - regional Several - regional plan plan	not specified SB cr cr st st prc	vallow inigated agriculture condwater 200m bg/l e.g. cok/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Well defined ((based on c numeric g model) c	GW-SW No connectivity, Gr groundwater m quality, ne groundwater pl levels, GDEs	lo program. Ye Groundwater mo nonitoring sta etwork in uni lace	is; Cultu onitoring but n atus Plan known	ural flows mentioned not incorporated in	trigger levels / temporary reductions	Cease to take period if minimum flow trigger levels are exceeded	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	Increasing groundwater extraction, interception and diversion of water in recharge zones, rising saline water tables, contamination through groundwater pollution	RCL not specified, management mechanism derivation not specified
Australia Tasmania	Groundwater Report for the Department of 2009 Sassafras Wesley Vale Primary Water Management Plan Water ad Environment	Internal reference Resource MDBA0153 number WMP Management 09/04 Plan	Devonport-Port- Several - regional plan Sassafras Tertiary Basin	not specified Sh gro (< sto pro	hallow Stock, domestic and oundwater irrigation 200m bgl) e.g. ock/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Limited E definition g e	Baseflows, No groundwater Gi dependent m ecosystems ne pla	lo program. Ye Groundwater mo nonitoring sta etwork in uni lace	is; Cultu onitoring consi atus known	ural flows not idered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows	Reduction or stoppin discharge from springs, impact on fish and invertebrate species	g RCL not specified, management mechanism not specified
Australia Tasmania	Sassafras Wesley Vale Department of 2012 Water Management Plan Primary Industries, Parks, Water and Environment	Resource MDBA0154 Management Plan	Devonport-Port Several - regional plan Sassafras Tertiary Basin	not specified Sh (< (< st prc	vallow Stock, domestic and cundwater imgation 200m bg) e.g. cok/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Nat specified / unknown	Reasonably (defined o	GDEs, water Ye quality, river gr baseflows m pe	es, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring consi atus known	ural flows not idered/mentioned	trigger levels / temporary reductions	Restriction on the taking of groundwater based on groundwater levels thresholds (i levels are below historical minimums) as a precautionary measure	Not specified / unknown	Water levels (mbd): Stewart are 1.25 (Spring) and 4.5 (Autumn); Swart are 1.50 (Spring) and 6.0 (Autumn); Richardson are 3.75 (Spring) and 7.0 (Autumn); Richardson are 3.75 (Spring) and 7.10 (Autumn); Rockat are 1.25 (Spring) and 9.5 (Autumn); Mitchall are 5.5 (Spring) and 9.5 (Autumn); Foster are 1.75 (Spring) and 3.5 (Autumn); Rockat are 3.75 (Spring) and 5.25 (Autumn); Marshall are 7.0 (Spring) and 5.0 (Autumn); Atkins are 9.75 (spring) and 10.5 (Autumn); Tristane Golf Club are 0.5 (Spring) and 1.75 (Autumn);	Understanding of scientifically e established) relationships if	Impact to GDEs		risks not specified, management mechanism derivation not specified
Australia Tasmania	Sassafras Wesley Vale Water Management Plan Water an agement Plan Water and Environment	Resource MDBA0154 Management Plan	Devonport-Port- Several - regional plan Sassafras Tertiary Basin	not specified Sh gro (< sto pro	hallow Stock, domestic and oundwater irrigation 200m bgl) e.g. ock/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Not specified / unknown	Reasonably (defined of	GDEs, water Ye quality, river gr baseflows m pe	es, Ye roundwater mo nonitored sta eriodically un	is; Cultu onitoring consi atus known	ural flows not idered/mentioned	trigger levels / temporary reductions	Restriction or prohibition on the extraction of groundwater from any wells wit close proximity of a relevant watercourse (where connectivity between groundwater and surface water has been identified)	h Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows		risks not specified, management mechanism derivation not specified, RCL not specified
Australia Tasmania	State Policy on Water Government of 1997 Quality Management 1997 Tasmania	Resource MDBA0155 Management Plan	not specified Not specified	not specified No	ot specified Drinking, irrigation, industry, stock, ecosystem protection	Not specified / Not specified unknown unknown	/ Not specified / unknown	Not Not demonstrated g	Water quality, No groundwater un ecosystems	lot specified / GE nknown ide	DEs not Cultu entified consi	ural flows not idered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	,	RCL not specified, management mechanism not specified, risks not specified
Australia Tasmania	Tomahawk River Catchment Department of 2012 Water Management Plan Primary Industries, Parks, Water and Environment	Resource MDBA0156 Management Plan	not specified Not specified	not specified No	ot specified not specified	Not specified / Connected unknown	Not specified / unknown	Not E demonstrated or	Replenishment No of groundwater un resources, water dependent ecosystems, baseflows	lot specified / GE	DEs not Cultu antified consi	ural flows not idered/mentioned	nat specified		Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows		RCL derivation not specified, risks not specified, management mechanisms not specified, groundwater use not specified
Australia Victoria	Sheppatron Irrigation Region Goulburn-Murray 1997 Groundvæter Supply Water Protection Arsa, Groundvæter Management Plan	Resource MDBA0005 Management Plan	Murray Darling Alluvium (alluvial basin) Basin	not specified; probably Sh Shepparton Formation grr (<2 sto pro	hallow irrigation oundwater 200m bgl) e.g. ock/domestic oductive use	Renewable Connected (younger water; recharge occurring)	Within Allocated Limit	Reasonably s defined r	salinity Ne management Gi m ne pla	lo program. GE Groundwater ide nonitoring etwork in lace	DEs not Cultu antified consi	ural flows not idered/mentioned	not specified		Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	groundwater pumpin is required for salinity control but is also used by irrigators.	g * RCL not specified



ORMANCE

MDBA: Rules and Resource Condition Limits

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Country State/Regime	Document Title	Author Date	Report Reference	Document	GHD Catalogue Number	Groundwater	Kind of Amilfer	Anuifer Name	Wha uses Aquifer depth / this i interval	t are the main s of groundwater in management	GW-S	W Level of	Level of knowledge system	What are the key of environmental priorities identified?	Is a groundwater monitoring program in place?	Are potential GDEs Are	e Cultural Flow values	Mechanism	Management Mechanisms	How are these	Resource Condition Limit (RCL)	How was the RC	L Coterrory	Risk Descriptions	Jurisdictions
Australia Victoria	Groundwater Management Fina for the Katunga Water Supply Protection Area	Golibum-Murray 2006 Water	PRO.	Resource I Management Plan	MDBA0006	Murray Darling Basin	Jatila ta Aqueeta (alluvial valley)	Murray Valley Deep Lead Aquih system	Postvia piece er Shallow irriga groundwater (<200m bg) e.g. stock/domestic productive use	ation	Renewable Come (younger water, recharge occurring)	cted Within Al	located Reasonably defined	r maintain aquifer integrit	Ves, y groundwater monitored periodically	GDEs not Cu identified cor	Issuer :	triger levels / temporary reductions	Available allocations are determined annually and the allocation for each season will depend on the 5-year average annual groundwater use.	Non-technical mean (nominally adopted)	Print with the Rockey of Recovery of the Recovery of Recovery of the Recovery	Understanding o scientifically established relationships	groundwater quali	 the availability of y water now and in the future: adverse effects that an approval may hav on existing users, on waterways and aquifers and on the environment; the existing and projected water quality in the WSPA 	* risks not specifically identified
Australia Victoria	Groundwater Management Plan for the Katunga Water Supply Protection Area	Goulbum-Murray 2006 Water		Resource Management Plan	MDBA0006	Murray Darling Basin	Altuvium (altuvial valley)	Murray Valley Deep Lead Aquifi system	er Shallow irrige groundwater (<200m bg) e.g. stock/domestic productive use	ation	Renewable Conne (younger water; recharge occurring)	Cted Within Al	located Reasonably defined	r maintain aquifer integrit	Yes, y groundwater monitored periodically	GDEs not Cu identified cor	itural flows not nsidered/mentioned	water trading (within the management area)	Restrictions on inter-zone water trading enforced	Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact	 the availability of water now and in the future; adverse effects that an approval may hav on existing users, on waterways and aquifers and on the environment; the existing and projected water quality in the WSPA 	* RCL determination not clear Machanism determination not known
Australia Victoria	State Environment Protection Policy (Groundwaters of Victoria) 1997	Victorian 1997 Government	No. S160	Resource Management Plan	MDBA0007	Statewide	Statewide	Statewide	Not specified State	ewide policy	Statewide Statew policy policy	ide Statewide	policy Statewide policy	maintain or improve groundwater quality	Not specified / unknown	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	water quality indicators	Groundwater has been classified into five segments on the basis of background TDS levels, which contain specific beneficial uses to uphold.	Not specified / unknown	N/A	Not specified / unknown	Degradation of groundwater quali	protection and/or ty improvement	
Australia Victoria	Murrayville Area Groundwater Management Plan 2001	Murrayville 2001 Groundwater Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0008	Murray Darling Basin	Parous rack	Murray Group Limestone Aquife	er Not specified not s	specified	Not specified / Not sp unknown unknow	ecified / Within Al wn Limit	located Not demonstrate	long-term ed aquifer sustainability	Yes, groundwater monitored periodically	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	zonal limits on entitlements	licences restricted if the upper limit of allocation for any zone is exceeded. Border agreement modelling	Non-technical mean (nominally adopted)	s not specified	Not specified / unknown	Not specified/identified	I	* RCL not specified * Risks not identified
Australia Victoria	Sietsinakle Estraction Limb Derived from the Rocharge Risk Assessment Method - Victoria	5 CSIRO and SKM 2010	1835-095X	Technical I	MDBA0064	all within VIC	Several - regional plan	Several - regional plan	Shallow Stoc groundwate (2200m bgl) 8.9. stock/comestic productive use	:k, domestic	Renewable Conne (younger water, recharge cocurring)	Eelow All	ocated Well define (based on numeric model)	d GDEs, GW- SW connectivity	Not specified / unknown	Yes; Cu monitoring cor status unknown	itural flows not	not specified		Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	Uses risk matrix to assess risk with respect to kay seet environmental assess function, production, production function, production des and set environmental outcomes. Other could suffers induction water availability as the results of climate pumping could reduce baseliow to rivers	Specific groundwater use not specified groundwater monitoring not specified, , management mechanism not specified
Australia Victoria	Neuarpur Area Groundwater Management Plan 2001	Neuarpur 2001 Groundwater Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0085	Murray Darling Basin	Conduit aquifers (cavernous limestone, basalt caves, etc.)	Duddo Limestone (part of Murra Group Limestone)	ay Shallow Irrige groundwater (<200m bgl) e.g. stock/domestic productive use	ation	Renewable Not sp (younger water; unknow recharge occurring)	ecified / Over Allo vn	cated Reasonably defined	 Protecting groundwater quality and quantity 	Yes, groundwater monitored periodically	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	undertake technical investigations	Border agreement modelling	Detailed scientific study	not specified	Not specified / unknown	Degradation of groundwater quali	Mobilisation of salts i ty the unsaturated zones, downward leakage of saline water from upper aquifer, contamination from land use	n * RCL and management mechanisms not identified * References were made to a report to be released in 2004, however this was not able to be found
Australia Victoria	Spring Hill Groundwater Supply Protection Area Groundwater Management Plan 2001	Groundwater 2001 Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0088	Murray Darling Basin	Fractured rock	Newer Volcanics	Shallow D&S groundwater (<200m bgl) e.g. stock/domestic productive use	5, and irrigation	Renewable Conne (younger water; recharge occurring)	cted Over Allo	cated Limited definition	SW-GW interaction, possible salinity problems	Yes, groundwater monitored periodically	GDEs not Cu identified cor	iltural flows not nsidered/mentioned	not specified	not identified	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs	GW-SW interactions and need for conjunctive management	* no RCLs or management mechanisms identified
Australia Victoria	Spring Hill Groundwater Supply Protection Area Groundwater Management Plan 2001	Groundwater 2001 Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0088	Murray Darling Basin	Fractured rock	Newer Volcanics	Shallow D&S groundwater (<200m bgl) e.g. stock/domestic productive use	S, and irrigation	Renewable Conne (younger water; recharge occurring)	cted Over Allo	cated Limited definition	SW-GW interaction, possible salinity problems	Yes, groundwater monitored periodically	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	water trading (within the management area)	trading rules	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quali	potential salinity ty impacts	
Australia Victoria	Spring Hill Groundwater Supply Protection Area Groundwater Management Plan 2001	Groundwater 2001 Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0088	Murray Darling Basin	Fractured rock	Newer Volcanics	Shallow D&S groundwater (<200m bgl) e.g. stock/domestic productive use	 and irrigation 	Renewable Conne (younger water; recharge occurring)	cted Over Allo	cated Limited definition	SW-GW interaction, possible salinity problems	Yes, groundwater monitored periodically	GDEs not Cu identified cor	iltural flows not nsidered/mentioned	water trading (within the management area)	trading rules	Not specified / unknown	not specified	Not specified / unknown	Interference impai to existing users	ts Over allocation in areas of the GSPA, irrigators taking more than is allocated on their licence	
Australia Victoria	Lower Campaspe Valley Water Supply Protection Area Groundwater Management Plan	Lowe Campaspe 2012 Valley Water Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0089	Murray Darling Basin	Several - regional plan	Shepparton Formation and Dee Lead (Calivil Formation and Renmark Group)	p Not specified Stoc and	ck and Domestic irrigation	Renewable Conne (younger water; recharge occurring)	cted Below All Limit	ocated Reasonably defined	Salinity, GW- SW interaction GDEs	Yes, n, groundwater monitored periodically	Yes; but not Cu monitored cor	Itural flows not nsidered/mentioned	trigger levels / temporary reductions	local access rules to protect GDEs	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quali	Inducting flow of ty saline shallow water to the deeper Deep Lead Formations	
Australia Victoria	Lower Campaspe Valley Water Supply Protection Area Groundwater Management Plan	Lowe Campaspe 2012 Valley Water Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0089	Murray Darling Basin	Several - regional plan	Shepparton Formation and Dee Lead (Calivil Formation and Renmark Group)	ap Not specified Stoc and	k and Domestic irrigation	Renewable Conne (younger water; recharge occurring)	cted Below All Limit	ocated Reasonably defined	Salinity, GW- SW interaction GDEs	Yes, n, groundwater monitored periodically	Yes; but not Cu monitored cor	litural flows not nsidered/mentioned	trigger levels / temporary reductions	local access rules to protect GDEs	Not specified / unknown	not specified - inferred to be groundwater level indicators	Not specified / unknown	Impact to GDEs	impact to GDEs and GW-SW interactions	
Australia Victoria	Lower Campaspe Valley Water Supply Protection Area Groundwater Management Plan	Lowe Campaspe 2012 Valley Water Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0089	Murray Darling Basin	Several - regional plan	Shepparton Formation and Dee Lead (Calivil Formation and Renmark Group)	ap Not specified Stoc and	ck and Domestic irrigation	Renewable Conne (younger water; recharge occurring)	cted Below All Limit	ocated Reasonably defined	Salinity, GW- SW interaction GDEs	Yes, n, groundwater monitored periodically	Yes; but not Cu monitored cor	Itural flows not nsidered/mentioned	water quality indicators	Trigger level initiates additional groundwater level and quality monitoring.	Not specified / unknown	2mAHD (negative) in November/December	Not specified / unknown	Degradation of groundwater quali	ty	
Australia Victoria	Lower Campaspe Valley Water Supply Protection Area Groundwater Management Plan	Lowe Campaspe 2012 Valley Water Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0089	Murray Darling Basin	Several - regional plan	Shepparton Formation and Dee Lead (Calivii Formation and Renmark Group)	ap Not specified Stoc and	k and Domestic irrigation	Renewable Conne (younger water; recharge occurring)	cted Below All Limit	ocated Reasonably defined	Salinity, GW- SW interaction GDEs	Yes, n, groundwater monitored periodically	Yes; but not Cu monitored cor	Itural flows not nsidered/mentioned	trigger levels / temporary reductions	Local access rules to minimise excessive drawdown	Not specified / unknown	2mAHD (negative) in November/December	Not specified / unknown	Hydrogeological integrity impact	excessive drawdown	
Australia Victoria	Groundwater Management Plan: Koo Wee Rup Water Supply protection Area	Southern Rural 2010 Water		Resource Management Plan	MDBA0092	Westernport Basin	Several - regional plan	Baxter, Sherwood and Yallock Formations for unconfined, which older volcanics and childers formations lower down	Not specified irriga crop	ation for vegetable as and D&S	Renewable Non-co (younger water; recharge occurring)	nnected Below All Limit	ocated Limited definition	PASS, Salinit	y Yes, groundwater monitored periodically	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	zonal limits on entitlements	The KWR WSPA comprises 8 separately managed sub-zones. Temporary qualification (restriction) of licensed extraction if zonal limits exceeded (metered usage exceeds 50% in any zone). In the first instance, the restriction level shall be 75%.	Not specified / unknown	not specified	Not specified / unknown	Not specified/identified	no specific risks mentioned	
Australia Victoria	Groundwater Management Plan: Koo Wee Rup Water Supply protection Area	Southern Rural 2010 Water		Resource Management Plan	MDBA0092	Westernport Basin	Several - regional plan	Baxter, Sherwood and Yallock Formations for unconfined, which older volcanics and childers formations lower down	Not specified irriga crop	ation for vegetable is and D&S	Renewable Non-co (younger water; recharge occurring)	nnected Below All Limit	ocated Limited definition	PASS, Salinit	y Yes, groundwater monitored periodically	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	water trading (within the management area)	Restrictions on water trading between sub-zones. Prohibition of groundwa transfer from inland management zones into coastal management zones	ter Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quali	potential for mixing o high and low salinity aquifers - the risk of seawater intrusion	f
Australia Victoria	Nullawarre Groundwater Supply Protection Area Explanatory Paper to the Groundwater Management Plan	Nullawarre 2001 Groundwater Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0093	Otway Basin	Paraus rock	Port Campbell Limestone	Shallow Dain groundwater (<200m bgl) e.g. stock/domestic productive use	y pastures	Renewable Conne (younger water; recharge occurring)	cted Over Allo	cated Limited definition	GW mining, declining WL trends, reduce baseflows and saline intrusion	No program. Groundwater ad monitoring I network in n place	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	not specified	not identified	Not specified / unknown	not identified	Not specified / unknown	impact to river baseflows	reduced river baseflows	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Nullawarre Groundwater Supply Protection Area Explanatory Paper to the Groundwater Management Plan	Nullawarre 2001 Groundwater Supply Protection Area Consultative Committee		Resource Management Plan	MDBA0093	Otway Basin	Porous rock	Port Campbell Limestone	Shallow Dairy groundwater (<200m bgl) e.g. stock/domestic productive use	y pastures	Renewable Conne (younger water; recharge occurring)	cted Over Allo	cated Limited definition	GW mining, declining WL trends, reduce baseflows and saline intrusion	No program. Groundwater ad monitoring network in n place	GDEs not Cu identified cor	Itural flows not nsidered/mentioned	not specified	not identified	Not specified / unknown	not identified	Not specified / unknown	Interference impart to existing users	ts	* RCL and management mechanisms not identified to relate back to the risks identified



Location information											ontortual informati	lion								Management Mechanisms			Paraura Condition Limit (PCL)			in b	Clarification / Verification Requirements of
Locator mornator				GI	GHD					What are the main uses of groundwater	n			Level of knowledge of	What are the 1s a key gro environmental mo	a xundwater A xnitoring p	Are potential			панадентенк меснальны			Resource condition Linik (RCL)				JUIISULUUIS
Country State/Region Australia Victoria	Document Title Nullawarre Groundwater	Author Date Nullawarre 2001	Report Reference No.	Pe Document Ca Type Nu Resource MI	Catalogue Grou lumber Basi IDBA0093 Otwa	n Kind of Aqu ay Basin Porous roc	juifer :k	Aquifer Name Port Campbell Limestone	Aquifer depth / interval Shallow	this management area? Dairy pastures	Renewable? C	GW-SW connectivity? Connected	Level of Development? Over Allocated	system behaviour Limited	priorities pro identified? pla GW mining, No	program. G	GDEs A identified? ar GDEs not C	re Cultural Flow value issue? ultural flows not	Mechanism Type not specified	Mechanism Descriptions not identified	How are these mechanisms deriv Not specified /	ed? What is the RCL? not identified	?	How was the RC derived? Not specified /	Category Degradation of	Risk Descriptions potential for saline	* RCL and management
	Supply Protection Area Explanatory Paper to the Groundwater Management Plan	Groundwater Supply Protection Area Consultative Committee		Management Plan					groundwater (<200m bgl) e.g stock/domestic productive use	L	(younger water; recharge occurring)			definition	declining WL Gro trends, reduced mo baseflows and net saline intrusion pla	oundwater ic mitoring twork in ce	identified cr	nsidered/mentioned			unknown			unknown	groundwater quality	intrusion	mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Sale Water Supply Protection Area	Sale Water 2003 Supply Protection Area (Groundwater) Consultative Committee		Resource Mi Management Plan	IDBA0094 Gipp	sland Basin Sands (coa	astal, aeolian)	Boisdale Formation	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, urban supply, dairy, . commercial	Renewable N (younger water; recharge occurring)	Non-connected	Within Allocate Limit	d Limited definition	GW mining, Yee declining WL gro trends, reduced mo baseflows and per saline intrusion	s, G undwater ic nitored riodically	GDEs not C identified co	ultural flows not ansidered/mentioned	distance rules for bores	local rules to minimise bore interference - minimum bore distar	nce of 300 m Not specified / unknown	not identified		Not specified / unknown	Interference impacts to existing users		* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Sale Water Supply Protection Area	Sale Water 2003 Supply Protection Area (Groundwater) Consultative Committee		Resource Mt Management Plan	IDBA0094 Gipp	ssland Basin Sands (coa	astal, aeolían)	Boisdale Formation	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, urban supply, dairy, . commercial	Renewable N (younger water; recharge occurring)	Non-connected	Within Allocate Limit	d Limited definition	GW mining, Ye declining WL gro trends, reduced mo baseflows and per saline intrusion	s, G undwater ic nitored riodically	GDEs not C	ultural flows not insidered/mentioned	not specified	Sale numerical groundwater model not mentioned in this Plan.	Not specified / unknown	not identified		Not specified / unknown	Degradation of groundwater quality	potential for saline intrusion	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Warrion Water Supply Protection Area	Southern Rural 2010 Water		Resource Mi Management Plan	IDBA0096 Otwa	ay Basin Fractured r	rock	fractured basalt and scoria	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Dairy, irrigation, commercial and domestic & stock purposes	Renewable C (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	sustainable Yee groundwater gro use and GDE mo protection per	s, Y undwater m nitored riodically	Yes; C monitored cr	ultural flows not insidered/mentioned	undertake technical investigations	none identified	Not specified / unknown	none identified		Not specified / unknown	Hydrogeological integrity impact	* sustainability risks of over allocation	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Warrion Water Supply Protection Area	Southern Rural 2010 Water		Resource Mi Management Plan	IDBA0096 Otwa	ay Basin Fractured r	rock	fractured basalt and scoria	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Dairy, irrigation, commercial and domestic & stock purposes	Renewable C (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	sustainable Yea groundwater gro use and GDE mo protection per	s, Y nundwater m nitored riodically	Yes; C monitored cr	ultural flows not ansidered/mentioned	undertake technical investigations	none identified	Not specified / unknown	none identified		Not specified / unknown	Impact to GDEs	* GDE impact risk through impacting GW gradients and discharges	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Warrion Water Supply Protection Area	Southern Rural 2010 Water		Resource Mi Management Plan	IDBA0096 Otwa	ay Basin Fractured r	rock	fractured basalt and scoria	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Dairy, irrigation, commercial and domestic & stock purposes	Renewable C (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	sustainable Yes groundwater gro use and GDE mo protection per	s, Y undwater m nitored riodically	Yes; C monitored cr	ultural flows not ansidered/mentioned	undertake technical investigations	none identified	Not specified / unknown	none identified		Not specified / unknown	Degradation of groundwater quality	* saline intrusion from lakes	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	YANGERY GROUNDWATER SUPPL PROTECTION AREA EXPLANATORY PAPER TO THE GROUNDWATER MANAGEMENT PLAN	Yangery 2001 Y Groundwater Supply Protection Area Consultative Committee		Resource Mi Management Plan	IDBA0097 Otwa	ay Basin Porous roc	ж	Port Campbell Limestone	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, dairy, domestic, stock, industrial, commercia	Renewable C (younger water; I recharge occurring)	Connected	Over Allocated	Reasonably defined	saline intrusion, Ye unsustainable gro extraction, mo interference per	s, Y undwater m nitored riodically	Yes; C monitored o	ultural flows not insidered/mentioned	not specified	not identified	Not specified / unknown	not identified		Not specified / unknown	impact to river baseflows	reduced river baseflows	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	YANGERY GROUNDWATER SUPPL PROTECTION AREA EXPLANATORY PAPER TO THE GROUNDWATER MANAGEMENT PLAN	Yangery 2001 Y Groundwater Supply Protection Area Consultative Committee		Resource Mi Management Plan	IDBA0097 Otwa	ay Basin Porous roc	:k	Port Campbell Limestone	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, dairy, domestic, stock, . industrial, commercia	Renewable C (younger water; i recharge occurring)	Connected	Over Allocated	Reasonably defined	saline intrusion, Ye unsustainable gro extraction, mo interference per	s, Y undwater m nitored riodically	Yes; C manitared ca	ultural flows not ansidered/mentioned	not specified	not identified	Not specified / unknown	not identified		Not specified / unknown	Interference impacts to existing users		* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	YANGERY GROUNDWATER SUPPL PROTECTION AREA EXPLANATORY PAPER TO THE GROUNDWATER MANAGEMENT PLAN	Yangery 2001 Y Groundwater Supply Protection Area Consultative Committee		Resource MI Management Plan	IDBA0097 Otwa	ay Basin Porous roc	:k	Port Campbell Limestone	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	irrigation, dairy, domestic, stock, industrial, commercia	Renewable C (younger water; i recharge occurring)	Connected	Over Allocated	Reasonably defined	saline intrusion, Yer unsustainable gro extraction, mo interference per	s, Y undwater m nitored riodically	Yes; C manitared ca	ultural flows not	not specified	not identified	Not specified / unknown	not identified		Not specified / unknown	Degradation of groundwater quality	potential for saline intrusion	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Yarram Water Supply Protection Area	Southern Rural 2010 Water		Resource Mi Management Plan	IDBA0098 Gipp	ssland Basin Sands (coa	astal, aeolian)	Latrobe Group, Ballook Formation	Deep groundwater (>200 m bgl)	80% irrigation, but also dairy, commerci and industrial	Renewable C al (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	saline intrusion, Ye unsustainable gro extraction, mo interference per	s, Y undwater m nitored si riodically u	Yes; C monitoring co status unknown	ultural flows not onsidered/mentioned	not specified	not identified	Not specified / unknown	not identified		Not specified / unknown	Degradation of groundwater quality	saline intrusion	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Groundwater Management Plan Yarram Water Supply Protection Area	Southern Rural 2010 Water		Resource Mt Management Plan	IDBA0098 Gipp	sland Basin Sands (coa	astal, aeolian)	Latrobe Group, Ballook Formation	Deep groundwater (>200 m bgl)	80% irrigation, but also dairy, commerci and industrial	Renewable C al (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	saline intrusion, Ye unsustainable gro extraction, mo interference per	s, Y undwater m nitored si riodically u	Yes; C monitoring co status unknown	ultural flows not onsidered/mentioned	not specified	not identified	Not specified / unknown	not identified		Not specified / unknown	Hydrogeological integrity impact	loss of artesian conditions, access to users	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Loddon Highlands Water Supply Protection Area Groundwater Management Plan	Goulbum-Murray 2012 Water		Resource Mi Management Plan	IDBA0099 Murr Basi	ray Darling Several - re n	egional plan	Newer Volcanic fractured basalt and the Deep Lead sand and gravel deposits	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	domestic and stock use, . irrigation, commercia and industrial purposes, reticulated urban supply	Renewable C (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	sustainable Yes groundwater gro use and GDE mo protection per	s, Y xundwater m nitored riodically	Yes; but not C monitored cr	ultural flows not ansidered/mentioned	trigger levels / temporary reductions	local rules to manage extraction with trigger levels and restricti entitlement caps.	ons, Understanding of scientifically established relationships	not identified		Not specified / unknown	Impact to GDEs		* RCL and management mechanisms not identified to relate back to the risks identified
Australia Victoria	Loddon Highlands Water Supply Protection Area Groundwater Management Plan	Goulbum-Murray 2012 Water		Resource Mi Management Plan	IDBA0099 Murr Basi	ay Darling Several - re n	egional plan	Newer Volcanic fractured basalt and the Deep Lead sand and gravel deposits	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	domestic and stock use, i irrigation, commercia and industrial purposes, reticulated urban supply	Renewable C (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	sustainable Yer groundwater gro use and GDE mo protection per	s, Y sundwater m mitored riodically	Yes; but not C monitored co	ultural flows not	water trading (within the management area)	local rules to manage temporary water trading/transfers. 2.5 km maximum distance for trading to be permitted	Not specified / unknown	not identified		Not specified / unknown	Hydrogeological integrity impact	protect the integrity of the aquifer and reduce the potential for unacceptable impacts to authorised groundwater users and the environment.	* RCL and management mechanisms not identified to relate back to the risks identified
Australia Western Australia	Carnarvon Artesian Basin Water Management Plan	Department of 2007 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. WRAP 24	Resource Mi Management Plan	IDBA0108 Carn Artes	arvon Porous roc sian Basin	k	Several - regional plan	Deep groundwater (>200 m bgl)	Pastoral and horticultural propertie industry, mining, tourism, town water supplies	Non-renewable N s, (fossil water. Usually confined or semi-confined)	Non-connected	Within Allocate Limit	d Well defined (based on numeric model)	sustainable Yes water use gro mo per	s, G undwater ic nitored riodically	GDEs not C identified in	ultural flows corporated in Plan	undertake technical investigations	5.2.5 Applicant requesting water entitlements greater than 50,0 where impacts are deemed significant, they must provide a mo program	000 kL/yr or Not specified / initoring unknown	not specified		Not specified / unknown	Not specified/identified		RCL method not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	Carnarvon Artesian Basin Water Management Plan	Department of 2007 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. WRAP 24	Resource Mt Management Plan	IDBA0108 Carr Artes	arvon Porous roc sian Basin	:k	Several - regional plan	Deep groundwater (>200 m bgl)	Pastoral and horticultural propertie industry, mining, tourism, town water supplies	Non-renewable N s, (fossil water. Usually confined or semi-confined)	Non-connected	Within Allocate Limit	d Well defined (based on numeric model)	sustainable Yee water use gro mo per	s, G oundwater ic nitored riodically	GDEs not C identified in	ultural flows corporated in Plan	not specified	5.2.6 Should an existing water user allege impacts by another, complainant will have to provide other monitoring data and ana information	the Not specified / lyses of the unknown	not specified		Not specified / unknown	Interference impacts to existing users		RCL method not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	La Grange Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 25	Resource Mi Management Plan	IDBA0109 not s	specified Porous roc	:k	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Horticulture, cultural, agriculture, mining, pasture production, domestic consumption and tourism	Renewable C (younger water; recharge n occurring)	Connected	Within Allocate Limit	d Reasonably defined	GDEs, Ye groundwater gro quality and mo quantity per	s, Y undwater m nitored si riodically u	Yes; C monitoring in status unknown	ultural flows corporated in Plan	water trading (within the management area)	Trading is not permitted between subareas	Not specified / unknown	not specified		Not specified / unknown	Not specified/identified		RCL method not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	La Grange Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 25	Resource Mt Management Plan	IDBA0109 not s	specified Porous roc	:k	Several - regional plan	Shallow groundwater (<200m bgl) e.g stock/domestic productive use	Horticulture, cultural, agriculture, mining, pasture production, domestic consumption and tourism	Renewable C (younger water; recharge n occurring)	Connected	Within Allocate Limit	d Reasonably defined	GDEs, Yer groundwater gro quality and mo quantity per	s, Y oundwater m nitored si riodically u	Yes; C monitoring in status unknown	ultural flows corporated in Plan	trigger levels / temporary reductions	If allocation limit is reached for 50% the regional monitoring pro- need to be assessed and consultation with stakeholders to eval work to be done. If it reaches scheduled of the limit and a water-use survey is conducted on groundwater user 90%, assess the need to review the water allocation plan.	ogram will Not specified / luate further unknown allocation s. If it reaches	not specified		Not specified / unknown	Not specified/identified		RCL method not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	Jurien Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 27	Resource Mi Management Plan	IDBA0110 Norti Basi	hern Perth Several - re n	egional plan	Several - regional plan	Not specified	Agricultural production, public water supply, mining public water supply and horticulture	Not specified / C unknown	Connected	Not specified / unknown	Reasonably defined	Groundwater Yer quality, GDEs, gro sustainable mo water use per	s, Y pundwater m mitored si riodically u	Yes; C monitoring bi status P unknown	ultural flows mentione at not incorporated in an	ed water trading (within the management area)	Rules around trading water between management areas	Not specified / unknown	not specified		Not specified / unknown	Hydrogeological integrity impact		RCL not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	Jurien Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 27	Resource Mi Management Plan	IDBA0110 Norti Basi	hern Perth Several - re	egional plan	Several - regional plan	Not specified	Agricultural production, public water supply, mining public water supply and horticulture	Not specified / C unknown	Connected	Not specified / unknown	Reasonably defined	Groundwater Yes quality, GDEs, gro sustainable mo water use per	s, Y oundwater m nitored si riodically u	Yes; C monitoring bi status P unknown	ultural flows mentione ut not incorporated in an	ed trigger levels / temporary reductions	Where the department has trigger water levels for a specific si department may restrict abstraction, require production bores t away from these sites or require the development of operating s monitoring programs	e, the Not specified / o be located unknown strategies with	not specified		Not specified / unknown	Hydrogeological integrity impact		RCL not specified, risks not specified, management mechanism derivation not specified
Australia Western Australia	Jurien Groundwater	Department of 2010 Water: Government of Western Australia Department of 2010	vvater Resource Allocation and Planning Series Report no. 27 Water Resource	Resource MI Management Plan	IDBA0110 Norti Basi	nern Perth Several - re	egional plan	Several - regional plan	Not specified	Agricultural production, public water supply, mining public water supply and horticulture Agricultural	Not specified / C	Connected	wat specified / unknown	Reasonably	Groundwater Yes quality, GDEs, gro sustainable mo water use per Groundwater Yes	s, Y nundwater m nitored si niodically u s. V	res; C monitoring bi status P unknown Yes: C	unural nows mentione at not incorporated in an	temporary reductions	vv:me a new recence has the potential to decrease groundwate to river basefow during low-low periods the department may: hydrogeological studies to be done, relocate the proposed extra away from the river and restrict the volume taken during certain Department may restrict any induster destanction to maxement the statement may be appressed and the statement may be appressed and the statement the statement may be appressed and the statement may be appressed and the statement maxement maxement may be appressed and the statement maxement maxement and the statement may be appressed and the statement may be appress	contribution Not specified / request unknown iction point h time periods inimise risk of Not specified /	not specified		Not specified /	Impact to river baseflows	Risk to groundwater	RUL not specified, risks not specified, management mechanism derivation not specified
Australia	Allocation Plan	Water: Government of Western Australia	Allocation and Planning Series Report no. 27	Management Plan	Basi	n	العمو من عن .			production, public water supply, mining public water supply and horticulture	unknown		unknown	defined	quality, GDEs, gro sustainable mo water use per	nitored si nitodically u	, U monitoring bi status P unknown	an	temporary reductions	saltwater interface moving inland	unknown	in apoulid		unknown	groundwater quality	quality	management mechanism derivation not specified



PLE PERFORMANCE

																								Clarification / Verification Requirements of
Location information									C	Contextual information		L must of	What are the	is a				Management Mechanisms		Resource Condition Limit (RCL)		R	sk	Jurisdictions
Country State/Region	Document Title	Author Date	Report Reference No.	GHD Document Catalogue Type Number	e Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / interval	what are the main uses of groundwater i this management area?	in GW-S Renewable? conner	V Level of tivity? Develop	knowledg system ment? behaviou	e of environmenta priorities identified?	al monitoring program in place?	potential GDEs identified?	Are Cultural Flow value an issue?	es Mechanism Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL?	How was the RCI derived?	L Category	Risk Descriptions	
Australia Western Australia	Lower Gascoyne Water Allocation Plan	Department of 2011 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 46	Resource MDBA011 Management Plan	1 not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, horticulture	Renewable Conne (younger water; recharge occurring)	ted Not speculation Not special unknown	cified / Reasonat n defined	ly sustainable water use, groundwater levels and water quality	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	The department takes a minimum of 4 salinity samples per year if the licensee wishes to apply for an increase	Not specified / unknown	Salinity needs to remain below 78.6 mS/m EC at 25 oC for the proceeding 3 year period	Not specified / unknown	Degradation of groundwater quality	Salinity risks, salinity movement	 RCL method not identified, management mechanism derivation not specified
Australia Western Australia	Lower Gascoyne Water Allocation Plan	Department of 2011 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 46	Resource MDBA011 Management Plan	1 not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, horticulture	Renewable Conne (younger water; recharge occurring)	ted Not sper unknown	cified / Reasonal n defined	ly sustainable water use, groundwater levels and water quality	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Cease pumping and notify licensee of high salinity levels	Non-technical means (nominally adopted)	If salinity levels exceed 176 mS.m EC at 25oC in horticultur, land, 146.5 mS/m EC at 25oC in individual subarea 1 bores and 467 mS/m EC at 25oC in non-horticultural land.	al Not specified / unknown	Degradation of groundwater quality	Salinity risks, salinity movement	 RCL method not identified, management mechanism derivation not specified
Australia Western Australia	Lower Gascoyne Water Allocation Plan	Department of 2011 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 46	Resource MDBA011 Management Plan	1 not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, horticulture	Renewable Conne (younger water; recharge occurring)	ted Not specurity unknown	cified / Reasonal n defined	ly sustainable water use, groundwater levels and water quality	Yes, groundwater monitored periodically	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	If water levels drop below trigger, the licensee must start to monitor tree stress using a department approved program, modify their abstraction regir based on the results of the forma and implement water efficiency measures	Not specified / ne unknown	Groundwater levels fall to within 10% of historical minimum water levels	Not specified / unknown	Hydrogeological integrity impact		RCL method not identified, management mechanism derivation not specified, risks not identified
Australia Western Australia	Gnangara Groundwater Areas Allocation Plan	Department of 2009 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 30	Resource MDBA011: Management Plan	2 not specified	Several - regional plan	Several - regional plan	Not specified	Domestic	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Ilocated Well defi (based or numeric model)	ed Declining groundwater levels, GDEs, water quality (salinity), groundwater acidification	Yes, groundwater , monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	trigger levels / temporary reductions	Review allocation limits and update plan	Not specified / unknown	Declining groundwater levels	Not specified / unknown	Hydrogeological integrity impact		specific risks not identified, RCI derivation not specified, management mechanism derivation not specified
Australia Western Australia	Gnangara Groundwater Areas Allocation Plan	Department of 2009 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 30	Resource MDBA011: Management Plan	2 not specified	Several - regional plan	Several - regional plan	Not specified	Domestic	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Ulocated Well defir (based or numeric model)	ed Declining groundwater levels, GDEs, water quality (salinity), groundwater acidification	Yes, groundwater , monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	water trading (within the management area)	Uses internal policy to manage trading around environmentally sensitive areas	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		specific risks not identified, RCL not specified, management mechanism derivation not specified
Australia Western Australia	Arrowsmith Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 28	Resource MDBA011: Management Plan	3 Northern Perth Basin	Several - regional plan	Several - regional plan	Not specified	Mining, public water supply and agricultura production	Renewable Conne al (younger water; recharge occurring)	ted Not sper unknow	ified / Reasonat	ly GDE, groundwater quality, sustainable water use, groundwater levels	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	Where the department has trigger water levels for a specific site, the department may readric abstration, require production hores to be located away from these sites or require the development of operating strategies wi monitoring programs	Not specified / unknown th	not specified	Not specified / unknown	Hydrogeological integrity impact		specific risks not identified, RCL not specified, management mechanism derivation not specified
Australia Western Australia	Arrowsmith Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 28	Resource MDBA011: Management Plan	3 Northern Perth Basin	Several - regional plan	Several - regional plan	Not specified	Mining, public water supply and agricultura production	Renewable Conne al (younger water; recharge occurring)	ted Not sper unknown	ified / Reasonat n defined	ly GDE, groundwater quality, sustainable water use, groundwater levels	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	Where a new licence has the potential to decrease groundwater combution to nive baselso during low-low periods the department may: request hydrogeological studies to be done, relocate the proposed extraction point away from the river and restrict the volume taken during certain time period away from the river and restrict the volume taken during certain time period	n Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows		specific risks not identified, RCL not specified, management mechanism derivation not specified
Australia Western Australia	Arrowsmith Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 28	Resource MDBA011: Management Plan	3 Northern Perth Basin	Several - regional plan	Several - regional plan	Not specified	Mining, public water supply and agricultura production	Renewable Conne al (younger water; recharge occurring)	ted Not sper unknown	ified / Reasonat n defined	ly GDE, groundwater quality, sustainable water use, groundwater levels	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed water trading (within the management area)	Rules around trading water between management areas	Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact		specific risks not identified, RCL not specified, management mechanism derivation not specified
Australia Western Australia	Arrowsmith Groundwater Allocation Plan	Department of 2010 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 28	Resource MDBA011: Management Plan	3 Northern Perth Basin	Several - regional plan	Several - regional plan	Not specified	Mining, public water supply and agricultur production	Renewable Conne al (younger water; recharge occurring)	ted Not specurity unknown	cified / Reasonat n defined	ly GDE, groundwater quality, sustainable water use, groundwater levels	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	Department may restrict groundwater abstraction to prevent/minimise risk satiwater interface moving intand	of Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	Risk to groundwater quality	RCL not specified, management mechanism derivation not specified
Australia Western Australia	Cockburn Groundwater Ar Water Management Plan	ea Department of 2007 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. WRAP 18	Resource MDBA011- Management Plan	4 not specified	Several - regional plan	Several - regional plan	Not specified	All development, industry, infrastructur	Non-renewable Conne e (fossil water. Usually confined or semi-confined)	ted Over All	ocated Well defir (based or numeric model)	ed GDE, groundwater quality, sustainable water use, GI SW connectivity	Yes, groundwater monitored periodically W-	Yes; monitored	Cultural flows mention but not incorporated in Plan	ed water trading (within the management area)	Marks based instrument to enallocate water to uses with higher economic benefit, more efficient water use, response of industry to changing conditio and assist in regional development	Non-technical means ns (nominally adopted)	not specified	Not specified / unknown	Not specified/identified		risks not specified, RCL not specified
Australia Western Australia	Cockburn Groundwater Ar Water Management Plan	ea Department of 2007 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. WRAP 18	Resource MDBA011- Management Plan	4 not specified	Several - regional plan	Several - regional plan	Not specified	All development, industry, infrastructur	Non-renewable Conne e (fossil water. Usually confined or semi-confined)	ted Over All	ocated Well defir (based or numeric model)	ed GDE, groundwater quality, sustainable water use, GI SW connectivity	Yes, groundwater monitored periodically W-	Yes; monitored	Cultural flows mention but not incorporated in Plan	ed trigger levels / temporary reductions	If abstraction regme is likely to have significant impacts on GDEs the department may require site specific work to be done see 5.3.2	Non-technical means (nominally adopted)	Minimum water levels for wetlands: Thomsons Lake: 10.8 mAHD, Bibra Lake 13.6 mAHD, Banganup Lake: 11.5 mAHD, Lake Coogee: -0.1 mAHD and Long Swamp: 0.1 mAHD.	Understanding of scientifically established relationships	Impact to GDEs	Impacted by groundwater abstraction	
Australia Western Australia	Murray Groundwater Allocation Plan	Department of 2012 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 22	Resource MDBA011: Management Plan	5 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry (48%), agriculture, parks and conservation, commercial including public water supply and backyard bores	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	llocated Reasonal defined	y Sustainable water use, GDEs, groundwater quality	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Where a new licence has the potential to decrease groundwate combution to new baselso during low-low periods the department may: request hydrogenological studies to be done, relocate the proposed extraction point away from the river and restrict abstraction	n Not specified / unknown	not specified	Not specified / unknown	impact to river baseflows	risk to river flow regime	RCL not specified, management mechanism derivation not specified
Australia Western Australia	Murray Groundwater Allocation Plan	Department of 2012 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 22	Resource MDBA011: Management Plan	5 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry (48%), agriculture, parks and conservation, commercial including public water supply and backyard bores	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Illocated Reasonal defined	ly Sustainable water use, GDEs, groundwater quality	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Where the department has trigger water levels for a specific site, the department may readric abstration, require production hores to be located away from these sites or require the development of operating strategies wi monitoring programs	Not specified / unknown th	not specified	Not specified / unknown	Hydrogeological integrity impact		RCL not specified, management mechanism derivation not specified, risks not specified
Australia Western Australia	Murray Groundwater Allocation Plan	Department of 2012 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 22	Resource MDBA011: Management Plan	5 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry (48%), agriculture, parks and conservation, commercial including public water supply and backyard bores	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Ilocated Reasonat defined	y Sustainable water use, GDEs, groundwater quality	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Department may restrict groundwater abstraction to prevent/minimise risk satiwater interface moving inland	of Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	Risk to groundwater quality	RCL not specified, management mechanism derivation not specified
Australia Western Australia	Rockingham-Stakehill Groundwater Managemen Plan	Department of 2008 t Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 23	Resource MDBA011 Management Plan	6 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry, agriculture, irrigation, service sector, domestic, stock and garden	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	llocated Well defi (based or numeric model)	ed Sustainable water use, GDEs, groundwater levels, water quality	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	undertake technical investigations	Assess the local and regional impacts of the proposed abstraction on the hydrology, environment and other groundwater users	Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact		derivation of management mechanism not specified, RCL not specified, risks not specified
Australia Western Australia	Rockingham-Stakehill Groundwater Managemen Plan	Department of 2008 t Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 23	Resource MDBA011i Management Plan	6 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry, agriculture, irrigation, service sector, domestic, stock and garden	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Vlocated Well defir (based or numeric model)	ed Sustainable water use, GDEs, groundwater levels, water quality	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	water trading (within the management area)	Trading can be utilised in a fully aflocated system, impacts on OBEs are considered. Market based instrument to realizable water to uses with high economic benefit, more efficient water use, response of industry to changin conditions and assist in regional development	Not specified / r unknown g	not specified	Not specified / unknown	Hydrogeological integrity impact		derivation of management mechanism not specified, RCL not specified, risks not specified
Australia Western Australia	Rockingham-Stakehill Groundwater Managemen Plan	Department of 2008 t Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 23	Resource MDBA0110 Management Plan	6 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry, agriculture, irrigation, service sector, domestic, stock and garden	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Illocated Well defir (based or numeric model)	ed Sustainable water use, GDEs, groundwater levels, water quality	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	trigger levels / temporary reductions	If abstraction regime is likely to have significant impacts on GDEs the department may require site specific work to be done see 4.1.3 and 4.1.2	Not specified / unknown	not specified	Not specified / unknown	Impact to GDEs		derivation of management mechanism not specified, RCL not specified, risks not specified
Australia Australia	Rockingham-Stakehill Groundwater Managemen Plan	Department of 2008 t Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 23	Resource MDBA0110 Management Plan	6 not specified	Several - regional plan	Several - regional plan	Not specified	Mining and industry, agriculture, irrigation, service sector, domestic, stock and garden	Renewable Conne (younger water; recharge occurring)	ted Within A Limit	Ilocated Well defir (based or numeric model)	ed Sustainable water use, GDEs, groundwater levels, water quality	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	trigger levels / temporary reductions	If the licensee is required to monitor groundwater quality any increases abo the trigger level needs to be reported within 7 days	ve Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality		derivation of management mechanism not specified, RCL not specified, risks not specified
Australia Australia	Subareas Water Management Plan	Water: Government of Western Australia	Allocation and Planning Series Report no. WRAP	Management Plan	, not specified	Geverar - regional plan	Gaverar - regional plan	INUR SPECIFIED	Livestock and domestic	(younger water; recharge occurring)	aeu Over All	(based or numeric model)	sustainable water use, GI SW connectivity	groundwater W- monitored periodically	res; monitored	considered/mentioned	nox specified		wo: specified / unknown	(m): depth of 0-3m: 0.75m drawdown, depth of 3-6m:1.25m drawdown, depth of 6-10m:1.75m drawdown.	established relationships	mipaci to GDES	abstraction	management mechanism not specified
Australia Western Australia	SouthWest Groundwater Areas Allocation Plan	Department of 2009 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 21	Resource MDBA011 Management Plan	8 not specified	Several - regional plan	Several - regional plan	Not specified	Commercial, water supply, stock and domestic, horticulture mining, pasture production	Renewable Conne (younger water; e, recharge occurring)	ted Over All	ocated Well defin (based or numeric model)	ed Sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	trigger levels / temporary reductions	If trigger is breached a management trigger and response framework has been developed shown in figure B1, where reviews are undertaken of vegetation continion monitoring data, water level monitoring data and water quality monitoring data.	Understanding of scientifically established relationships	Water level triggers: Kernerton 8.05 mAHD, Kay Park: 2.73 mAHD, Harewoods Rd: 5.72 mAHD, Ludlow Rall Reserve: 7.50 mAHD, Ruabon Reserve: 7.16 mAHD, Ambergate Reserve: 16.85 mAHD, poison Gully: 30.47 mAHD, Reedia: 2.373 mAHD, Black Point Rd: 42.69 mAHD, Lake Jasper: 38.50 mAHD.	Detailed scientific study	Impact to GDEs		specific risks not identified
Australia Western Australia	SouthWest Groundwater Areas Allocation Plan	Department of 2009 Water: Government of Western Australia	Water Resource Allocation and Planning Series Report no. 21	Resource MDBA0113 Management Plan	8 not specified	Several - regional plan	Several - regional plan	Not specified	Commercial, water supply, stock and domestic, horticulture mining, pasture production	Renewable Conne (younger water; a, recharge occurring)	ted Over All	ocated Well defir (based or numeric model)	ed Sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	trigger levels / temporary reductions	If trigger is breached a management trigger and response framework has been developed shown in figure 51, where reviews are undertaken of vegetation condition monitoring data, water level monitoring data and water quality monitoring data.	Understanding of scientifically established relationships	Triggers for GDEs Blackwood River-Darradup Gauging Station and Hut Pool Gauging Station: Flow below historical minimum during months of summer basellow	Detailed scientific study	Impact to GDEs	Impact from groundwater abstraction to GDEs by causing changes in discharge zones	specific risks not identified



Location information	nformation										Contextual inform	nation								Management Mechanisms			Resource Condition Limit (RCL)			Risk	Clarification / Verification Requirements of Jurisdictions
Country State/Region	Document Title	Author Dat	Report Refere te No.	nce Document Type	GHD Catalogue Number	Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / interval	What are the main uses of groundwater this management area?	r in Renewable?	GW-SW connectivity?	Level of Development?	Level of knowledge of system behaviour	W hat are the key environmental priorities identified?	Is a groundwater monitoring program in place?	Are potential GDEs identified?	Are Cultural Flow value: an issue?	s Mechanism Type	Mechanism Descriptions	How are these mechanisms derived	? What is the RCL	?	How was the RC derived?	CL Category	Risk Descriptions	
Australia Western Australia	SouthWest Groundwater Areas Allocation Plan	Department of 200 Water: Government of Western Australia	Water Resourc Allocation and Planning Series Report no. 21	e Resource Managemer s Plan	MDBA0118 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Commercial, water supply, stock and domestic, horticultur mining, pasture production	Renewable (younger water; re, recharge occurring)	Connected	Over Allocated	Well defined (based on numeric model)	Sustainable water use, GDEs, GW- SW connectivity	Yes, groundwater monitored periodically	Yes; monitored	Cultural flows incorporated in Plan	water trading (within the management area)	Must comply with trading policies set out in Table 4 and 6	Not specified / unknown	not specified		Not specified / unknown	Hydrogeological integrity impact		specific risks not identified, RCL not specified, management mechanism derivation not specified
Australia Western Australia	Upper Collie Water Allocation Plan	Department of 200 Water: Government of Western Australia	09 Water Resourc Allocation and Planning Series Report no. 20	e Resource Managemer s Plan	MDBA0119 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Mining, power station water supply, irrigation, domestic, stock	 Renewable (younger water; recharge occurring) 	Connected	Over Allocated	Well defined (based on numeric model)	sustainable water use, groundwater levels and water quality,	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water trading (within the management area)	Transfer and trade water entitlements can be purchased for protection of a critical environmental asset. This water becomes the property of the asset and can not be reallocated. See Table 9, 13	Non-technical means (nominally adopted)	s not specified		Not specified / unknown	Not specified/identifie	1	RCL not specified, risks not specified
Australia Western Australia	Upper Collie Water Allocation Plan	Department of 200 Water: Government of Western	09 Water Resourc Allocation and Planning Series Report no. 20	e Resource Managemer s Plan	MDBA0119 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Mining, power station water supply, irrigation, domestic, stock	n Renewable (younger water; recharge occurring)	Connected	Over Allocated	Well defined (based on numeric model)	GDE sustainable water use, groundwater levels and	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	trigger levels / temporary reductions	The department requires licensee to monitor and report on the quality of th resource in reference to salinity and acidity	ne Not specified / unknown	Increase in salini	y concentration above baseline levels	Not specified / unknown	Degradation of groundwater qual	ty	RCL derivation not specified, risks not specified
Australia Western Australia	Esperance Groundwater Area Water Managemen Plan	Australia Department of 200 t Water: Government of Western	07 Water Resourc Allocation and Planning Series Report no. WR	e Resource Managemen s Plan AP	MDBA0120 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, public wat supply, parks and gardens, domestic, agricultural and	ter Renewable (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	water quality, GDE Sustainable water use, groundwater quality, GDEs	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	water trading (within the management area)	Solves difficult management issues where demand for a limited resource exceeds supply. Market based instrument to reallocate water to uses with higher economic benefit, more efficient water use, response of industry to changing conditions and assist in regional development	Not specified / unknown	not specified		Not specified / unknown	Hydrogeological integrity impact		Specific risks not specified, RCL not specified, management derivation not specified
Australia Western Australia	Esperance Groundwater Area Water Managemen Plan	Department of 200 t Water: Government of Western	16 07 Water Resourc Allocation and Planning Series Report no. WR	e Resource Managemer s Plan AP	MDBA0120 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, public wat supply, parks and gardens, domestic, agricultural and	ter Renewable (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	Sustainable water use, groundwater quality, GDEs	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	trigger levels / temporary reductions	The application for a license should refer to the Water Allocation Branch a Water Investigation and Assessment Branch for assessment and advise if trigger levels are breached. See 5.2.12. Extraction from the well exceeds 1.500kL/yr within 500 metres of, or great	nd Not specified / the unknown	not specified		Not specified / unknown	Impact to GDEs		Specific risks not specified, RCL derivation not specified, mechanism derivation not specified
Australia Western Australia	Esperance Groundwater Area Water Managemen Plan	Australia Department of 200 t Water: Government of Western	16 07 Water Resourc Allocation and Planning Series Report no. WR	e Resource Managemer s Plan AP	MDBA0120 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, public wat supply, parks and gardens, domestic, agricultural and	ter Renewable (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	Sustainable water use, groundwater quality, GDEs	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	distance rules for bores	than 50,000kJyr within 1 kilometre of Ramsar Wetlands or wetlands of national and international importance Water shall not be allocated within 1km of bore	Not specified / unknown	not specified		Not specified / unknown	Impact to GDEs	Risk to water regim	 Specific risks not specified, RCL derivation not specified, mechanism derivation not specified, RCL derivation not
Australia Western Australia	Esperance Groundwater Area Water Managemen Plan	Australia Department of 200 t Water: Government of Western	16 07 Water Resourc Allocation and Planning Series Report no. WR	e Resource Managemen s Plan AP	MDBA0120 nt	not specified	Several - regional plan	Several - regional plan	Not specified	Irrigation, public wat supply, parks and gardens, domestic, agricultural and	ter Renewable (younger water; recharge occurring)	Connected	Within Allocate Limit	d Reasonably defined	Sustainable water use, groundwater quality, GDEs	Yes, groundwater monitored periodically	Yes; monitoring status unknown	Cultural flows incorporated in Plan	trigger levels / temporary reductions	An exceedance of the trigger must be reported to the department within 7 days. The department may require the licensee to monitor the quality of th groundwater on a monthly basis	Not specified / e unknown	Increase in salini	ty above 1,000 mg/L TDS	Not specified / unknown	Degradation of groundwater qual	ty	specified Specific risks not specified, RCL derivation not specified, mechanism derivation not specified, RCL derivation not
United Kingdom	Managing water abstract	Australia ion Environment 201 Agency	10 13 LIT 4892 / 746, Version 3	12 Non-Techni	ical MDBA0169	Several - regio plan	nal Several - regional plan	Non specific regional plan	Not specified	not specified	Not specified / unknown	Not specified / unknown	/ Not specified / unknown	Not demonstrated	Not specified	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	not specified		Not specified / unknown	N/A		high level non technical management strategy outline
United Kingdom	Broadland Abstraction Licensing Strategy	Environment 201 Agency	13	Resource Managemer Plan	MDBA0170 nt	not specified	Porous rock	Broads Chalk	Shallow groundwater (<200m bgl) e. stock/domestic	irrigation, public wat supply g.	ter Not specified / unknown	Connected	Not specified / unknown	Limited definition	sustainable us	e Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	If the flow in the fiver drops below that which is required to protect the environment abstraction must stop, hence 'Hands-Off Flow'.	Through advice from technical advisors	not specified		Not specified / unknown	Degradation of groundwater qual	saline intrusion ty	RCL not identified
United Kingdom	Aire and Calder Abstract Licensing Strategy	ion Environment 201 Agency	13	Resource Managemer Plan	MDBA0171 nt	not specified	Porous rock	Millstone Grit, Magnesium Limestone and Sherwood Sandstone	Shallow groundwater (<200m bgl) e.y stock/domestic	public water supply, the chemical industr g. textiles, mineral c. washing and some	, Not specified / ry, unknown	Connected	Not specified / unknown	Limited definition	sustainable us	se Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	not specified		Not specified / unknown	Degradation of groundwater qual	saline intrusion ty	RCL not identified
United Kingdom	Aire and Calder Abstract Licensing Strategy	ion Environment 201 Agency	13	Resource Managemer Plan	MDBA0171 nt	not specified	Porous rock	Millstone Grit, Magnesium Limestone and Sherwood Sandstone	Shallow groundwater (<200m bgl) e. stock/domestic	public water supply, the chemical industr g. textiles, mineral washing and some	, Not specified / ry, unknown	Connected	Within Allocate Limit	d Limited definition	sustainable us	e Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	not specified		Not specified / unknown	Interference impa to existing users	cts Groundwater levels this area will be drawn down if new licences are granted	in RCL not identified
United Kingdom	The Meirionnydd Catchment Abstraction Management Strategy	Environment 200 Agency	35	Resource Managemer Plan	MDBA0172	not specified	Alluvium (alluvial valley)	diamicton (glacial deposits), alluvial deposits (clay, silt and sand) primarily in the river valleys and areas of sand near the coasts.	Shallow groundwater r (<200m bgl) e. stock/dombine productive use	the groundwater resource is of considered insignificant and groundwater abstraction has been exempt fro licence control since the 1960's as a result of the Gwynedd River Authonty (Exemption from Control) Order, 1965.	Not specified / unknown m a	Not specified / unknown	/ Not specified / unknown	Not demonstrated	Not specified	Not specified / unknown	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	not specified		Not specified / unknown	Not specified/identifie	3	Groundwater not allocated. No RCLs or risks specified.
United Lake Count States California	7, Big Valley GROUNDWATER MANAGEMENT PLAN	Big Valley 199 Groundwater Management Zone Commission	99	Resource Managemer Plan	MDBA0162 nt	Big Balley	Alluvium (alluvial basin)	Kelseyville and Adobe Creek- Manning Creek (unconfined) Western and Central Upland (confined)	Deep groundwater (>200 m bgl)	irrigation, food processing, and domestic uses	Renewable	Connected	Varies throughout the basin	Limited definition	sustainable GW allocation and gw quality protection	Yes V	GDEs not identified	Cultural flows not considered/mentioned	drawdown limit	ts Monitoring, user coordination	Not specified / unknown	No net negative i	mpact	Not specified / unknown	Degradation of groundwater qual	agricultural induced ty salt intrusion, managing conjuncti use	specific trigger level RCLs to minimise negative impacts not ve mentioned
United Lake Count States California	, Big Valley GROUNDWATER MANAGEMENT PLAN	Big Valley 199 Groundwater Management Zone Commission	99	Resource Managemer Plan	MDBA0162 nt	Big Balley	Alluvium (alluvial basin)	Kelseyville and Adobe Creek- Manning Creek (unconfined) Western and Central Upland (confined)	Deep groundwater (>200 m bgl)	irrigation, food processing, and domestic uses	Renewable	Connected	Varies throughout the basin	Limited definition	sustainable GW allocation and gw quality protection	Yes 1	GDEs not identified	Cultural flows not considered/mentioned	distance rules for bores	Monitoring, user coordination. Establish quantitative limitations on groundwater extractions for particular areas and establishing criteria for well spacing and operations to limit adverse impacts of groundwater extraction on Basin wells, if needed	Not specified / unknown	No net negative i	mpact	Not specified / unknown	Interference impa to existing users	cts agricultural induced salt intrusion, managing conjuncti use	specific trigger level RCLs to minimise negative impacts not ve mentioned
United Lake Count States California	Analysis	Lake County 200 Watershed Protection District	06	Technical	MDBA0164	Multiple basins	Several - regional plan	12 groundwater basins and on groundwater source area	ne multiple	agricultural and domestic	Renewable	Connected	Varies throughout the basin	well defined	overdraft and wellhead protection	yes	GDEs not identified	Cultural flows not considered/mentioned	not specified	not specified	Not specified / unknown	not specified		Not specified / unknown	Not specified/identifie	1	RCLs, risks and management mechanisms not identified
United Lassen Cot States California	nty, Lassen County Groundw Management Plan	ater Lassen County 200 Board of Supervisors	70	Resource Managemer Plan	MDBA0165 nt	Honey Lake, B Valley, and Modoc Plateau Pleistocene Volcanic Area	g Holocene Sedimentary Deposits Pleistocene Lake and Ni shore Deposits Plic- Pleistocene and Pleistocene volcanic Rocks Quatemary Sedimentary Deposits Tertiary Hallelujah Formation	Honey Lake, Big Valley, and Modo Platau Pleistocene ear- Volcanic Area	Shallow groundwater (<200m bgl) e. stock/domestic productive use	agricultural and domestic 9	Renewable	Connected	Varies throughout the basin	Varies	Control of saline intrusion wellhead protection, migration of contaminated, overdraft, conjunctive use, Establish management objectives	yes n,	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Groundwater monitoring, monitoring ground subsidence, develop Basin Management Objectives	Public meetings and studies	Land subsidence	or aquifer compaction	review of monitoring resul grant funded studies	Degradation of ts, groundwater qual	agricultural induced ty salt intrusion, overdraft impacts	
United Lassen Cou States California	nty, Lassen County Groundw Management Plan	ater Lassen County 200 Board of Supervisors	37	Groundwatt Managemer Plan	er MDBA0165 nt	Honey Lake, B Valley, and Modoc Plateau Pleistocene Volcanic Area	ig Holocene Sedimentary Deposits Pleistocene Lake and N shore Deposits Plic- Pleistocene and Pleistocene volcanic Rocks Quaternary Sedimentary Deposits Tertiary Hallelujah Formation	Honey Lake, Big Valley, and Modoc Plateau Pleistocene aar- Volcanic Area	Shallow groundwater (<200m bgl) e. stock/domestic productive use	agricultural and domestic g.	Renewable	Connected	Varies throughout the basin	Varies	Control of saline intrusion wellhead protection, migration of contaminated, overdraft, conjunctive use, Establish management objectives	yes n,	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Groundwater monitoring, develop Basin Management Objectives	Not specified / unknown	not specified		review of monitoring result grant funded studies	Hydrogeological ts, integrity impact	agricultural induced salt intrusion, overdraft impacts	
United Lassen Cou States California	nty, Lassen County Groundw Management Plan	ater Lassen County 200 Board of Supervisors	77	Resource Managemer Plan	MDBA0165 nt	Honey Lake, B Valley, and Modoc Plateau Pleistocene Volcanic Area	ig Holocene Sedimentary Deposits Pleistocene Lake and Ni shore Deposits Plic- Pleistocene and Pleistocene Volcanic Rocks Quatemary Sedimentary Deposits Tertiary Hallelujah Formation	Honey Lake, Big Valley, and Modoc Plateau Pleistocene ear- Volcanic Area	Shallow groundwater (<200m bgl) e. stock/domestic productive use	agricultural and domestic g.	Renewable	Connected	Varies throughout the basin	Varies	Control of saline intrusion wellhead protection, migration of contaminated, overdraft, conjunctive use, Establish management objectives	yes n,	GDEs not identified	Cultural flows not considered/mentioned	trigger levels / temporary reductions	Groundwater monitoring, monitoring ground subsidence, develop Basin Management Objectives	Public meetings and studies	Land subsidence	or aquifer compaction	review of monitoring result grant funded studies	Hydrogeological ts, integrity impact	agricultural induced salt intrusion, overdraft impacts	
United Paso Roble States California	 Paso Robles Basin Groundwater Manageme Plan 	Paso Robles 201 nt Groundwater Basin Groundwater Advisory Committee	11	Resource Managemer Plan	MDBA0166 nt	Paso Robles Formation	Plic-Pleistocene, predominantly non-mari geologic unit comprised relatively thin, often discontinuous sand and gravel layers interbedde with thicker layers of silt and clay	Paso Robies Formation ne Sub basins: Atascadero, of Bradley, Creston, Estrella, Gabian (North and South), Sa Juan, and Shandon d	Deep groundwater (>200 m bgl) an	Municipal, commercial, and agricultural	Renewable	Connected	highly but varie throughout the basin	is fair but varies	maximum yield and land subsidence	yes	GDEs not identified	Cultural flows not considered/mentioned	undertake technical investigations	develop Basin Management Objectives	Public meetings and studies	not specified		Not specified / unknown	impact to river baseflows	Well head and sour area protection, ove drafting causing los of water supply	ce r s



MDBA: Rules and Resource Condition Limits Literature Review Compilation

Location informa	ion									c	ontextual informatio	0						Management Mechanisms		Resource Condition Limit (RC	L)		Rick	Clarification / Verification Requirements of Jurisdictions
					GHD					What are the main uses of groundwater i			Level of knowledge of	What are the Is a key groundwate environmental monitoring	er Are									
Country State/Regi	n Document Title	Author	Re Date No	port Reference Docume . Type	nt Catalogue Number	Groundwater Basin	Kind of Aquifer	Aquifer Name	Aquifer depth / interval	this management area?	GV Renewable? cor	V-SW nnectivity?	Level of system Development? behaviour	priorities program in identified? place?	GDEs Are Cult identified? an issue	Itural Flow values A	Mechanism Type	Mechanism Descriptions	How are these mechanisms derived?	What is the RCL?	How was the R0 derived?	CL Category	Risk Descriptions	
United Paso Rob States California	es, Paso Robles Basin Groundwater Manag Plan	Paso Robles ament Groundwater Basin –Groundwate Advisory Committee	2011 r	Resourc Manage Plan	MDBA016	6 Paso Robles Formation	Pilo-Pleistocene, predominantly non-marin geologic unit comprised or relatively thin, often discontinuous sand and gravel layers interbedded with thicker layers of silt and clay	Paso Robles Formation e Sub basins- Atascadero, of Bradley, Creston, Estrella, Gabilan (North and South), Sar Juan, and Shandon	Deep groundwater (>200 m bgl)	Municipal, commercial, and agricultural	Renewable Co	nnected	highly but varies fair but varies throughout the basin	maximum yes yield and land subsidence	GDEs not Cultural identified consider	l flows not d red/mentioned	drawdown limits	develop Basin Management Objectives	Public meetings and studies	not specified	Not specified / unknown	Degradation of groundwater quality	Well head and source area protection, over drafting causing loss of water supply. Contaminant migration.	
United Paso Rob States California	Paso Robles Basin Groundwater Manag Plan	Paso Robles Groundwate Basin -Groundwate Advisory Committee	2011 Ir	Resourc Manage Plan	MDBA016	6 Paso Robles Formation	Pilo-Pleistocene, predominantly non-marin geologic unit comprised r relatively thin, often discontinuous sand and gravel layers interbedded with thicker layers of silt and clay	Paso Robles Formation e Sub basins: Atascadero, of Bradley, Creston, Estrella, Gabian (North and South), Sar Juan, and Shandon	Deep groundwater (>200 m bgl)	Municipal, commercial, and agricultural	Renewable Cor	nnected	highly but varies fair but varies throughout the basin	maximum yes yield and land subsidence	GDEs not Cultural identified consider	I flows not u red/mentioned ti it	undertake technical investigations	develop Basin Management Objectives	Public meetings and studies	Land subsidence of aquifer compaction	Not specified / unknown	Hydrogeological integrity impact	Inelastic land subsidence, which is a permanent lowering of the ground surface resulting from compaction of geologic materials caused by groundwater extraction	
United Sacramer States California	o, Sacramento Ground Authority Groundwa Management Plan	vater Sacramento Groundwater Authority	2008	Resourc Manage Plan	MDBA016	7 North America (as in America River Basin) Groundwater Sub basin	n Turtock Lake and n Rivehark Formations: uncompositional grantian. Lagran Formation: non- volcanic, comprised of heterogeneous deposits o silt, city, sands and fine gravels, Mehrten Formation: uppe sedimentary unit is composed of well sorted black andesitic sands, sometimes with ocbbies and boulders, and interbodde black non- bonoldated unit is a har and very dense gray tuff- breccia	North American sub units Turtock Lake and Reverbank, Laguna, and Mehrte M	Deep groundwater in (>200 m bgl)	Municipal, commercial, and agricultural	Renewable Co	nnected	highly developed well defined	Migration of Yes contamination	GDEs not. Cultural identified consider	I flows not u red/mentioned t	undertake technical investigations	further investigate groundwater - surface water interactions	Not specified /	not specified	Not specified / unknown	impact to river baseflows	Well head and source area protection, over drafting causing of a source of water supply los	
United Sacramer States California	 Sacramento Groundy Authority Groundya Management Plan 	water Sacramento Groundwater Authority	2008	Resourc Managa Plan	MDBA016	7 North America (as in America River Basin) Groundwater Sub basin	n Turtock Lake and Rivebank Formations: unconsolidated decomposed granite, Laguna Formation: non- volcanic, comprised of heterogeneous deposite atil, clay, Mehrten Formation: uppe sedimentary unit is composed of well sorted black andesite sands, sometimes with cobbies and boulders, and interbedded blue to brown clays; the lower consolidated unit is a har on- bray dems gray thif	North American sub units Turkot Lake and Riverbank, Laguna, and Mehrte of	Deep groundwater in (>200 m bgl)	Municipal, commercial, and agricultural	Renewable Co	nnected	highly developed well defined	Migration of Yes contamination	GDEs not. Cultural	I flows not b red/mentioned b n	trigger levels / temporary reductions	Groundwater monitoring, monitoring ground subsidence, develop Basin Management Objectives	Public meetings and studies	net specified	review of monitoring resul grant funded studies	Hydrogeological Its, integrity impact	Well head and source area protection, over darting eausing loss of water supply	
United Sacramer States California	o, Sacramento Groundh Authofty Groundwa Management Plan	vater Sacramento Groundwater Authority	2008	Resource Manage Plan	MDBA016	7 North America (as in America River Basin) Groundwater Sub basin	n Turicok Lake and n Turicok Lake and n Rivebank Formations: unconsolidated decomposed granite, Laguna Formation: unp- volcanic, comprised of heterogeneous deposits silt, clay, sands and fine gravels, sands and fine gravels, denten Formation: uppe sedimentary unit is composed of well sorted black andesitic sands, sometimes with ocbbles and boulders, and interbedded blue to brown clays; the lower consolidated unit is a har and very dense gray tuff- breccia	Noth American sub units Turkot Lake and Riverbank, Laguna, and Mehrte of r	Deep groundwater in (>200 m bgl)	Municpal, commercial, and agricultural	Renewable Co	nnected	highly developed well defined	Migration of Yes contamination	GDEs not. Cultural identified consider	I flows not v	water quality indicators	Groundwater monitoring, monitoring ground subsidence, develop Basin Management Objectives	Public meetings and studies	not specified	Not specified / unknown	Degradation of groundwater quality	migration of contaminated groundwater, saline water intrusion	
United San Diego States California	San Pasqual Basin Groundwater Manag Plan	The City of S ement Diego Water Department	an 2007	Resourc Manage Plan	MDBA016 hent	8 San Pasqual Valley basin	unconsolidated granitic alluvium	San Pasqual Valley basin	Shallow groundwater (<200m bgl) e. stock/domestic productive use	Municipal, and agricultural g.	Renewable Co	nnected	highly developed fair but varies	Source area yes and wellhead protection, groundwater supply	GDEs not Cultural identified consider	I flows not v red/mentioned in	water quality indicators	Groundwater monitoring, develop Basin Management Objectives	Not specified / unknown	not specified	Not specified / unknown	Degradation of groundwater quality	Well head and source area protection, over drafting causing loss of water supply	
United San Diego States California	San Pasqual Basin Groundwater Manag Plan	The City of S ement Diego Water Department	an 2007	Resourc Manage Plan	MDBA016 hent	8 San Pasqual Valley basin	unconsolidated granitic alluvium	San Pasqual Valley basin	Shallow groundwater (<200m bgl) e. stock/domestic productive use	Municipal, and agricultural g.	Renewable Cor	nnected	highly developed fair but varies	Source area yes and wellhead protection, groundwater supply	GDEs not Cultural identified consider	I flows not v red/mentioned in	water quality indicators	Groundwater monitoring, develop Basin Management Objectives	Not specified / unknown	not specified	Not specified / unknown	Hydrogeological integrity impact	Well head and source area protection, over drafting causing loss of water supply	
United Southern States County ar Northern County (foothills of sierras), Californic	fulare GROUNDWATER d MANAGEMENT PL/ iem DELANO-EARLIMAI IRRIGATION DISTR	DELANO-EA N MART RT IRRIGATION ICT DISTRICT	RLI 2007	Resourc Manager Plan	MDBA016 hent	3 Tule and Kern County Groundwater Sub-basins	Alluvium (alluvial basin)	Tulare Lake Hydrologic Region, Kern County Sub-basin and the Tule River Sub-basin	, Deep a groundwater (>200 m bgl)	95% irrigation	Renewable Co	nnected	highly developed well defined	overdraft saline Yes intrusion from agriculture	GDEs not Cultural identified consider	i flows not to red/mentioned to n	trigger levels / temporary reductions	Monitoring, user coordination	Not specified / unknown	No net negative impact	Not specified / unknown	Interference impact to existing users	s overdraft impacts	specific trigger level RCLs to minimise negative impacts not mentioned
United Southern States County ar Northern I County (foothills o sierras), California	fulare GROUNDWATER d MANAGEMENT PL/ ierm DELANO-EARLIMAI IRRIGATION DISTR	DELANO-EA N MART RT IRRIGATION ICT DISTRICT	RLI 2007	Resourc Manager Plan	MDBA016 hent	3 Tule and Kern County Groundwater Sub-basins	Alluvium (alluvial basin)	Tulare Lake Hydrologic Region, Kern County Sub-basin and the Tule River Sub-basin	, Deep 9 groundwater (>200 m bgl)	95% irrigation	Renewable Co	nnected	highly developed well defined	overdraft saline Yes intrusion from agriculture	GDEs not Cultural identified consider	I flows not to ered/mentioned to n	trigger levels / temporary reductions	Monitoring, user coordination	Not specified / unknown	No net negative impact	Not specified / unknown	Degradation of groundwater quality	agricultural induced salt intrusion, contaminant migration	specific trigger level RCLs to minimise negative impacts not mentioned