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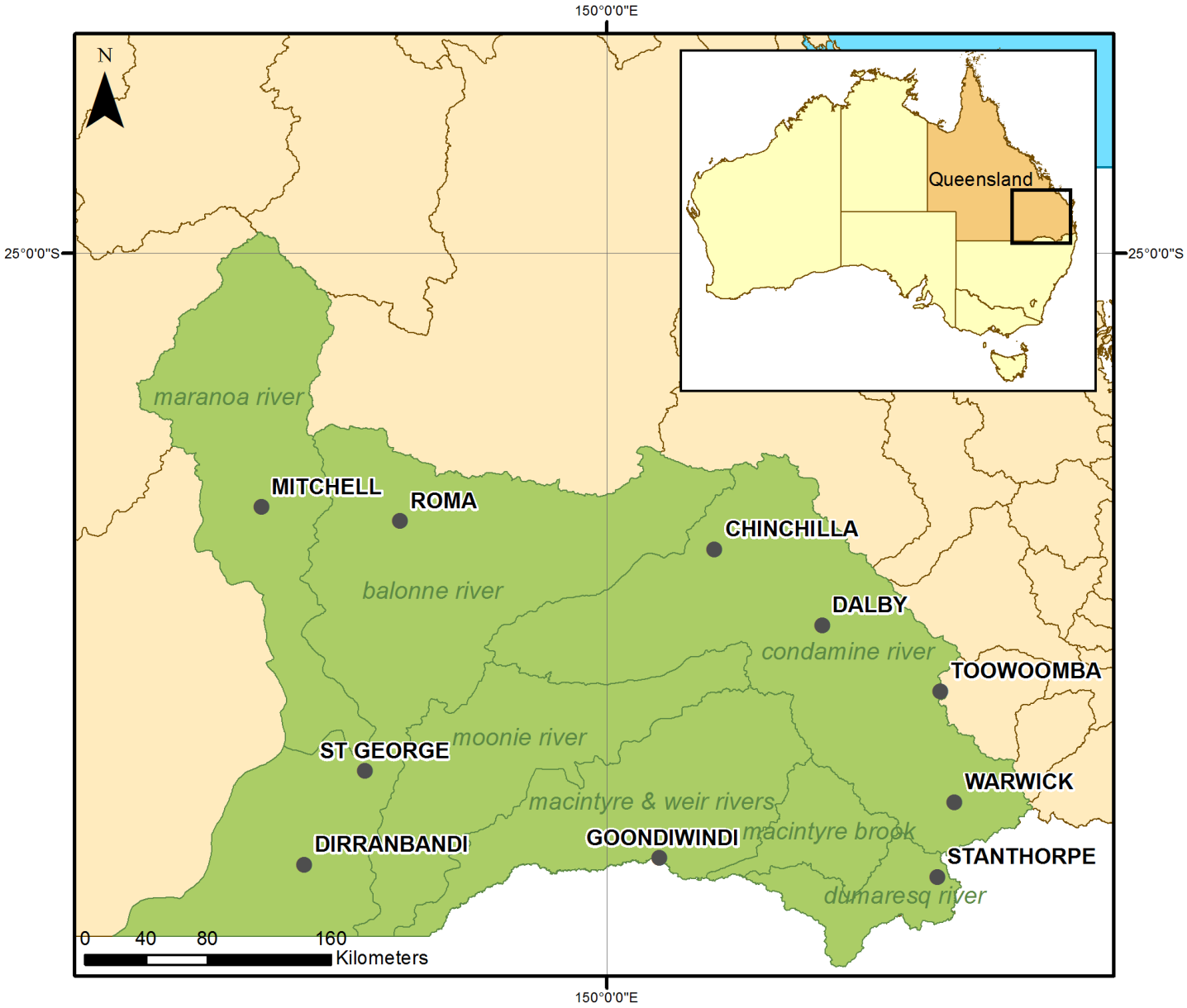
Groundwater dependent ecosystem mapping rule-sets for the eastern Murray-Darling Basin

Version 1.5

Eastern Murray-Darling Basin



Queensland Government

Groundwater dependent ecosystem mapping rule-sets

Groundwater dependent ecosystem mapping rule-sets are a combination of attributes (e.g. geology, rainfall, vegetation community, etc.) that describe the drivers, processes and interrelationships occurring between ecosystems and groundwater in a landscape based on local, expert knowledge. When applied to spatial data sets, these mapping rule-sets identify where ecosystems are, or are potentially, dependent on groundwater in a landscape.

Mapping rule-sets by catchment

Mapping rule-set	Drainage sub-basin						
	Balonne River	Condamine River	Dumaresq River	Macintyre Brook	Macintyre and Weir Rivers	Maranoa River	Moonie River
Alluvial aquifer mapping rule-sets							
eMDB_RS_01A			X	X	X	X	
eMDB_RS_01B	X				X		
eMDB_RS_01C						X	
eMDB_RS_01D	X			X			
eMDB_RS_01E	X				X	X	X
eMDB_RS_01F		X					
eMDB_RS_01G							X
eMDB_RS_01H		X					
eMDB_RS_01I		X	X	X			
eMDB_RS_01J		X	X	X			
eMDB_RS_01K				X			
eMDB_RS_01L		X					
eMDB_RS_01M		X					
eMDB_RS_01N		X					
eMDB_RS_01Q		X	X				
eMDB_RS_01R			X				
eMDB_RS_01S		X					
eMDB_RS_01T		X					
eMDB_RS_01U		X					
eMDB_RS_01V		X					
eMDB_RS_01W		X					
eMDB_RS_01X		X					
Catchment constriction mapping rule-sets							
eMDB_RS_02A		X					
eMDB_RS_02B		X					
eMDB_RS_02C		X					
eMDB_RS_02D		X					
Sandy plain aquifer mapping rule-sets							
eMDB_RS_03A	X	X	X	X	X	X	X
eMDB_RS_03B				X	X		

Mapping rule-set	Drainage sub-basin						
	Balonne River	Condamine River	Dumaresq River	Macintyre Brook	Macintyre and Weir Rivers	Maranoa River	Moonie River
Inland sand ridge aquifer mapping rule-sets							
eMDB_RS_04A						X	
eMDB_RS_04B	X				X		
eMDB_RS_04C						X	
eMDB_RS_04D	X						
eMDB_RS_04E	X				X	X	X
eMDB_RS_04F		X					
Sedimentary rock aquifer mapping rule-sets							
eMDB_RS_05A	X	X				X	
eMDB_RS_05B	X	X		X	X		X
Permeable rock (basalt) aquifer mapping rule-sets							
eMDB_RS_06A		X					
eMDB_RS_06B		X					
eMDB_RS_06C	X	X		X	X	X	
Fractured rock (granite) aquifer mapping rule-sets							
eMDB_RS_07A		X	X	X			
eMDB_RS_07B		X	X				
eMDB_RS_07C		X	X				
eMDB_RS_07D		X	X				
eMDB_RS_07E			X				
Fractured rock (metamorphic rock) aquifer mapping rule-sets							
eMDB_RS_08A		X	X	X			
eMDB_RS_08B		X	X	X			
Exclusion zone mapping rule-set							
eMDB_RS_09	X	X	X	X	X	X	X

Groundwater dependent ecosystem mapping rule-set descriptions

eMDB_RS_01A (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01B (Ecosystems intermittently connected to aquifers with fresh salinity and alkaline pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and alkaline pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01C (Ecosystems intermittently connected to aquifers with brackish salinity and neutral pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with brackish salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01D (Ecosystems intermittently connected to aquifers with brackish salinity and alkaline pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with brackish salinity and alkaline pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01E (Ecosystems intermittently connected to aquifers with saline salinity and neutral pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with saline salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01F (Ecosystems intermittently connected to aquifers with saline salinity and alkaline pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with saline salinity and alkaline pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01G (Ecosystems intermittently connected to aquifers with saline salinity in unconsolidated Quaternary alluvia in the semi-closed depression of Goondoola basin)

Goondoola Basin is an ancient lakebed located approximately 50 kilometres south-east of St George. Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranual voids. Land use practices have resulted in rising groundwater tables that have accumulated salt natural stored in the landscape. The high salinity of this groundwater currently prevents ecosystems from depending on groundwater.

eMDB_RS_01H (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from geologically stratified, fractured basalt aquifers in high rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding geologically stratified, fractured basalt aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01I (Ecosystems near-permanently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from permeable rock (granite) aquifers in low rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding permeable granite aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01J (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from fractured rock (e.g. Texas beds) aquifers)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding fractured rock aquifers in Texas beds.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01K (Ecosystems permanently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs permanently connected to alluvial aquifers with fresh salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01L (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from geologically stratified, fractured basalt aquifers in low rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding geologically stratified, fractured basalt aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01M (Ecosystems intermittently connected to aquifers with brackish salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from geologically stratified, fractured basalt aquifers in low rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with brackish salinity and neutral pH that receive groundwater flow from surrounding geologically stratified, fractured basalt aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01N (Ecosystems intermittently connected to aquifers with saline salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from geologically stratified, fractured basalt aquifers in low rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with saline salinity and neutral pH that receive groundwater flow from surrounding geologically stratified, fractured basalt aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01Q (Ecosystems near-permanently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from permeable rock (granite) aquifers in high rainfall areas)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs near-permanently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding permeable granite aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01R (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia supported by groundwater flow from permeable rock (rhyodacite) aquifers)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity and neutral pH that receive groundwater flow from surrounding permeable rhyodacite aquifers.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01S (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers in the Condamine River drainage basin sub-area with fresh salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands where depth to groundwater is ten metres or less.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research or in areas where depth to groundwater is ten metres or less.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01T (Ecosystems intermittently connected to perched aquifers with fresh salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to perched alluvial aquifers in the Condamine River drainage basin sub-area with fresh salinity and neutral pH.

- Potential terrestrial GDEs dependent on these perched alluvial aquifers include deep rooted regional ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.

eMDB_RS_01U (Ecosystems intermittently connected to aquifers with brackish salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers in the Condamine River drainage basin sub-area with brackish salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands where depth to groundwater is 10 metres or less.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research or in areas where depth to groundwater is 10 metres or less.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01V (Ecosystems intermittently connected to perched aquifers with brackish salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to perched alluvial aquifers in the Condamine River drainage basin sub-area with brackish salinity and neutral pH.

- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.

eMDB_RS_01W (Ecosystems intermittently connected to aquifers with saline salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to alluvial aquifers in the Condamine River drainage basin sub-area with saline salinity and neutral pH.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands in areas where depth to groundwater is 10 metres or less.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels identified through prior research or in areas where depth to groundwater is 10 metres or less.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_01X (Ecosystems intermittently connected to perched aquifers with saline salinity and neutral pH in unconsolidated Quaternary alluvia in the Condamine River drainage basin sub-area)

Alluvial aquifers form from particles such as gravel, sand, silt and/or clay deposited by fluvial processes in river channels or on floodplains. These deposits store and transmit water to varying degrees through intergranular voids. This rule-set identifies potential GDEs intermittently connected to perched alluvial aquifers in the Condamine River drainage basin sub-area with saline salinity and neutral pH.

- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, *Corymbia tessellaris*, and/or *Eucalyptus coolabah*.

eMDB_RS_02A (Ecosystems intermittently connected to aquifers with fresh salinity in unconsolidated Quaternary alluvia associated with catchment constrictions)

Catchment constrictions are a narrowing in the width and/or depth of the catchment resulting in the formation of a catchment throat which acts as a ‘bottle-neck’. Often groundwater upslope of a catchment constriction is shallower due to the restriction of groundwater flow through the constriction point. There may also be a widening of the floodplain upslope of a catchment constriction due to the restriction of sediment flow through the constriction point. This mapping rule-set identifies potential GDEs intermittently connected to alluvial aquifers with fresh salinity influenced by a catchment constriction.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_02B (Ecosystems intermittently connected to aquifers with brackish salinity in unconsolidated Quaternary alluvia associated with catchment constrictions)

Catchment constrictions are a narrowing in the width and/or depth of the catchment resulting in the formation of a catchment throat which acts as a ‘bottle-neck’. Often groundwater upslope of a catchment constriction is shallower due to the restriction of groundwater flow through the constriction point. There may also be a widening of the floodplain upslope of a catchment constriction due to the restriction of sediment flow through the constriction point. This mapping rule-set identifies potential GDEs intermittently connected to alluvial aquifers with brackish salinity influenced by a catchment constriction.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_02C (Ecosystems intermittently connected to aquifers with saline salinity and neutral pH in unconsolidated Quaternary alluvia associated with catchment constrictions)

Catchment constrictions are a narrowing in the width and/or depth of the catchment resulting in the formation of a catchment throat which acts as a ‘bottle-neck’. Often groundwater upslope of a catchment constriction is shallower due to the restriction of groundwater flow through the constriction point. There may also be a widening of the floodplain upslope of a catchment constriction due to the restriction of sediment flow through the constriction point. This mapping rule-set identifies potential GDEs intermittently connected to alluvial aquifers with saline salinity and neutral pH influenced by a catchment constriction.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_02D (Ecosystems intermittently connected to aquifers with saline salinity and alkaline pH in unconsolidated Quaternary alluvia associated with catchment constrictions)

Catchment constrictions are a narrowing in the width and/or depth of the catchment resulting in the formation of a catchment throat which acts as a ‘bottle-neck’. Often groundwater upslope of a catchment constriction is shallower due to the restriction of groundwater flow through the constriction point. There may also be a widening of the floodplain upslope of a catchment constriction due to the restriction of sediment flow through the constriction point. This mapping rule-set identifies potential GDEs intermittently connected to alluvial aquifers with saline salinity and alkaline pH influenced by a catchment constriction.

- Potential surface GDEs dependent on these alluvial aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands.

eMDB_RS_03A (Ecosystems intermittently connected to aquifers with brackish salinity in sandy plains)

Tertiary to Quaternary loamy and sandy plains typically develop permeable sediment that readily stores and transmits groundwater. Discharge of groundwater typically occurs around the contact between these sediments and less permeable underlying rock. This rule-set identifies potential GDEs intermittently connected to permeable sandy plain aquifers with brackish salinity.

- Potential terrestrial GDEs dependent on these sandy plain aquifers include deep rooted regional ecosystems including ecosystems dominated by *Eucalyptus camaldulensis*, *Eucalyptus intertexta*, and/or *Corymbia tessellaris*.
- Potential surface GDEs dependent on these sandy plain aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of the contact with less permeable ironstone jump-ups.
- Potential surface GDEs dependent on these alluvial aquifers include riverine water bodies and channels within 50 metres of the contact with less permeable ironstone jump-ups.
- Potential terrestrial GDEs dependent on these alluvial aquifers include deep rooted regional ecosystems within 50 metres of the contact with less permeable ironstone jump-ups.
- Potential terrestrial GDEs dependent on these alluvial aquifers include riverine wetlands within 50 metres of the contact with less permeable ironstone jump-ups.

eMDB_RS_03B (Ecosystems permanently connected to aquifers with fresh salinity in the sandy plains of Yelarbon Desert)

Yelarbon Desert, located east of Goondiwindi, is a highly alkaline landscape due to the accumulation of salt transported by groundwater. Tertiary to Quaternary loamy and sandy plains typically develop permeable sediment that readily stores and transmits groundwater. Discharge of groundwater typically occurs around the contact between these sediments and less permeable underlying rock. This rule-set identifies potential GDEs permanently connected to permeable sandy plain aquifer of Yelarbon Desert with fresh salinity.

- Potential surface GDEs dependent on this sandy plain aquifer includes channels.
- Potential terrestrial GDEs dependent on this sandy plain aquifer includes *Triodia* sp. Grassland with emergent trees on Cainozoic sand plains and/or remnant surfaces (regional ecosystem 11.5.14).

eMDB_RS_04A (Ecosystems intermittently connected to aquifers with fresh salinity and neutral pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with fresh salinity and neutral pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_04B (Ecosystems intermittently connected to aquifers with fresh salinity and alkaline pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with fresh salinity and akaline pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_04C (Ecosystems intermittently connected to aquifers with brackish salinity and neutral pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with brackish salinity and neutral pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_04D (Ecosystems intermittently connected to aquifers with brackish salinity and alkaline pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with brackish salinity and alkaline pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_04E (Ecosystems intermittently connected to aquifers with saline salinity and neutral pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with saline salinity and neutral pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_04F (Ecosystems intermittently connected to aquifers with saline salinity and alkaline pH in unconsolidated inland sand ridges)

Alluvial aquifers are formed from particles such as gravel, sand, silt and/or clay deposited by physical processes in river channels or on floodplains. These deposits store and transmit water through intergranular voids. This rule-set identifies potential GDEs intermittently connected to inland sand ridge aquifers with saline salinity and alkaline pH.

- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia* spp. and/or *Eucalyptus melanophloia* open forest to woodland on Cainozoic alluvial plains (regional ecosystem 11.3.19).
- Potential terrestrial GDEs dependent on these inland sand ridge aquifers include *Callitris glaucophylla*, *Corymbia tessellaris*, *Acacia excelsa* with or without *Corymbia clarksoniana* open woodland on old alluvial dunes and sand plains (regional ecosystem 6.3.17).

eMDB_RS_05A (Ecosystems intermittently connected to aquifers with fresh salinity in relatively homogenous consolidated sedimentary rock)

Sedimentary rocks are formed by the deposition of sediment which accumulates over time. Chemical, physical and/or biological processes compacts the sediment causing it to consolidate. The Great Artesian Basin is composed of sedimentary rock layers of varying thickness and porosity, forming a sequence of confined aquifers and aquitards. This rule-set identifies potential GDEs intermittently connected to relatively homogenous sandstone aquifers with fresh salinity.

- Potential surface GDEs dependent on these sandstone aquifers include lacustrine wetlands, palustrine wetlands and riverine water bodies within 50 metres of a second order or greater channel.
- Potential surface GDEs dependent on these sandstone aquifers include channels.
- Potential terrestrial GDEs dependent on these sandstone aquifers include deep rooted regional ecosystems within 50 metres of a second order or greater channel.
- Potential terrestrial GDEs dependent on these sandstone aquifers include riverine wetlands within 50 metres of a second order or greater channel.
- Potential terrestrial GDEs dependent on these sandstone aquifers include:
    - *Eucalyptus saligna*, *Syncarpia glomulifera* subsp. *glomulifera* open forest (regional ecosystem 11.10.2).
    - *Eucalyptus longirostrata*, *Eucalyptus tereticornis*, *Eucalyptus laevopinea* and *Angophora floribunda* dominated open forest canopy (regional ecosystem 11.10.2a).
    - Semi-evergreen vine thicket and microphyll rainforest (regional ecosystem 11.10.8).

eMDB_RS_05B (Ecosystems intermittently connected to aquifers with fresh salinity in relatively heterogeneous consolidated sedimentary rock)

Sedimentary rocks are formed by the deposition of sediment which accumulates over time. Chemical, physical and/or biological processes compacts the sediment causing it to consolidate. The Great Artesian Basin is composed of sedimentary rock layers of varying thickness and porosity, forming a sequence of confined aquifers and aquitards. This rule-set identifies potential GDEs intermittently connected to relatively heterogeneous sandstone aquifers with fresh salinity.

- Potential surface GDEs dependent on these sandstone aquifers include lacustrine wetlands, palustrine wetlands and riverine water bodies within 50 metres of a second order or greater channel.
- Potential surface GDEs dependent on these sandstone aquifers include channels.
- Potential terrestrial GDEs dependent on these sandstone aquifers include deep rooted regional ecosystems within 50 metres of a second order or greater channel.
- Potential terrestrial GDEs dependent on these sandstone aquifers include riverine wetlands within 50 metres of a second order or greater channel.
- Potential terrestrial GDEs dependent on these sandstone aquifers include:
    - *Eucalyptus saligna*, *Syncarpia glomulifera* subsp. *glomulifera* open forest (regional ecosystem 11.10.2).
    - *Eucalyptus longirostrata*, *Eucalyptus tereticornis*, *Eucalyptus laevopinea* and *Angophora floribunda* dominated open forest canopy (regional ecosystem 11.10.2a).
    - Semi-evergreen vine thicket and microphyll rainforest (regional ecosystem 11.10.8).

eMDB_RS_06A (Ecosystems intermittently connected to aquifers with fresh salinity in geologically stratified permeable rock (basalt) in high rainfall areas)

Basalt weathers and oxidises relatively fast in comparison to other rock types. Basalt has highly variable porosity and may form aquifers which store and transmit groundwater through the vesicles, fractures and weathered zones of the basalt. Discharge of groundwater is common around the contact between basalt and less permeable underlying geologies including bands of rhyolite and mudstone. This rule-set identifies potential GDEs intermittently connected to geologically stratified basalt aquifers with fresh salinity located in high rainfall areas.

- Potential surface GDEs dependent on these basalt aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these basalt aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of the edge of basalt.
- Potential surface GDEs dependent on these basalt aquifers include channels extending up to one kilometre from basalt.
- Potential surface GDEs dependent on these basalt aquifers include riverine water bodies within 50 metres of a channel on basalt.
- Potential surface GDEs dependent on these basalt aquifers include riverine water within 50 metres of the edge of basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include deep rooted regional ecosystems within 50 metres of a channel on basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include deep rooted regional ecosystems within 50 metres of the edge of basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include riverine wetlands within 50 metres of a channel on basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include riverine wetlands within 50 metres of the edge of basalt.

eMDB_RS_06B (Ecosystems intermittently connected to aquifers with fresh salinity in geologically stratified permeable rock (basalt) in low rainfall areas)

Basalt weathers and oxidises relatively fast in comparison to other rock types. Basalt has highly variable porosity and may form aquifers which store and transmit groundwater through the vesicles, fractures and weathered zones of the basalt. Discharge of groundwater is common around the contact between basalt and less permeable underlying geologies including bands of rhyolite and mudstone. This rule-set identifies potential GDEs intermittently connected to geologically stratified basalt aquifers with fresh salinity located in low rainfall areas.

- Potential surface GDEs dependent on these basalt aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these basalt aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of the edge of basalt.
- Potential surface GDEs dependent on these basalt aquifers include channels extending up to one hundred metres from basalt.
- Potential surface GDEs dependent on these basalt aquifers include riverine water bodies within 50 metres of a channel on basalt.
- Potential surface GDEs dependent on these basalt aquifers include riverine water within 50 metres of the edge of basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include deep rooted regional ecosystems within 50 metres of the edge of basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include riverine wetlands within 50 metres of a channel on basalt.
- Potential terrestrial GDEs dependent on these basalt aquifers include riverine wetlands within 50 metres of the edge of basalt.

eMDB_RS_06C (Ecosystems intermittently connected to aquifers with fresh salinity in geologically stratified permeable rock (basalt))

Basalt weathers and oxidises relatively fast in comparison to other rock types. Basalt has highly variable porosity and may form aquifers which store and transmit groundwater through the vesicles, fractures and weathered zones of the basalt. Discharge of groundwater is common around the contact between basalt and less permeable underlying geologies including bands of rhyolite and mudstone. This rule-set identifies potential GDEs intermittently connected to geologically stratified basalt aquifers with fresh salinity.

- Potential surface GDEs dependent on these basalt aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of a channel.
- Potential surface GDEs dependent on these basalt aquifers include riverine water bodies within 50 metres of a channel.
- Potential surface GDEs dependent on these basalt aquifers include channels.
- Potential terrestrial GDEs dependent on these basalt aquifers include deep rooted regional ecosystems within 50 metres of a channel.
- Potential terrestrial GDEs dependent on these basalt aquifers include riverine wetlands within 50 metres of a channel.

eMDB_RS_07A (Ecosystems intermittently connected to aquifers with fresh salinity in fractured rock (granite) in low rainfall areas)

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable igneous rocks. Groundwater may discharge from fractured igneous rock aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs intermittently connected to granite aquifers with fresh salinity located in low rainfall areas.

- Potential surface GDEs dependent on these granite aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of a channel.
- Potential surface GDEs dependent on these granite aquifers include riverine water bodies within 50 metres of a channel.
- Potential surface GDEs dependent on these granite aquifers include channels.
- Potential terrestrial GDEs dependent on these granite aquifers include deep rooted regional ecosystems within 50 metres of a channel.
- Potential terrestrial GDEs dependent on these granite basalt aquifers include riverine wetlands within 50 metres of a channel.

eMDB_RS_07B (Ecosystems near-permanently connected to aquifers with fresh salinity in fractured rock (granite) in low rainfall areas)

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable igneous rocks. Groundwater may discharge from fractured igneous rock aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs near-permanently connected to granite aquifers with fresh salinity located in low rainfall areas.

- Potential surface GDEs dependent on these granite aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these granite aquifers include riverine water bodies.
- Potential surface GDEs dependent on these granite aquifers include channels.
- Potential terrestrial GDEs dependent on these granite aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these granite aquifers include riverine wetlands.

eMDB_RS_07C (Ecosystems intermittently connected to aquifers with fresh salinity in fractured rock (granite) in high rainfall areas)

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable igneous rocks. Groundwater may discharge from fractured igneous rock aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs intermittently connected to granite aquifers with fresh salinity located in high rainfall areas.

- Potential surface GDEs dependent on these granite aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of a first order channel.
- Potential surface GDEs dependent on these granite aquifers include riverine waterbodies within 50 metres of a first order channel.
- Potential surface GDEs dependent on these granite aquifers include first order channels.
- Potential terrestrial GDEs dependent on these granite aquifers include deep rooted regional ecosystems within 50 metres of a first order channel.
- Potential terrestrial GDEs dependent on these granite aquifers include riverine wetlands within 50 metres of a first order channel.

eMDB_RS_07D (Ecosystems near-permanently connected to aquifers with fresh salinity in fractured rock (granite) in high rainfall areas)

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable igneous rocks. Groundwater may discharge from fractured igneous rock aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs near-permanently connected to granite aquifers with fresh salinity located in high rainfall areas.

- Potential surface GDEs dependent on these granite aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these granite aquifers include riverine water bodies.
- Potential surface GDEs dependent on these granite aquifers include channels.
- Potential terrestrial GDEs dependent on these granite aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these granite aquifers include riverine wetlands.

eMDB_RS_07E (Ecosystems intermittently connected to aquifers with fresh salinity in fractured rock (rhyodacite))

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable igneous rocks. Groundwater may discharge from fractured igneous rock aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs intermittently connected to granite aquifers with fresh salinity.

- Potential surface GDEs dependent on these granite aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of a third order or greater channel.
- Potential surface GDEs dependent on these granite aquifers include riverine water bodies within 50 metres of a third order or greater channel.
- Potential surface GDEs dependent on these granite aquifers include third order or greater channels.
- Potential terrestrial GDEs dependent on these granite aquifers include deep rooted regional ecosystems within 50 metres of a third order or greater channel.
- Potential terrestrial GDEs dependent on these granite aquifers include riverine wetlands within 50 metres of a third order or greater channel.

eMDB_RS_08A (Ecosystems intermittently connected to aquifers with fresh salinity in fractured rock (e.g. Texas beds))

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable Texas beds. Groundwater may discharge from fractured Texas beds aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs intermittently connected to Texas beds aquifers with fresh salinity.

- Potential surface GDEs dependent on these Texas beds aquifers include lacustrine wetlands and palustrine wetlands within 50 metres of a second order or greater channel.
- Potential surface GDEs dependent on these Texas beds aquifers include riverine water bodies within 50 metres of a second order or greater channel.
- Potential surface GDEs dependent on these Texas beds aquifers include second order or greater channels.
- Potential terrestrial GDEs dependent on these Texas beds aquifers include deep rooted regional ecosystems within 50 metres of a second order or greater channel.
- Potential terrestrial GDEs dependent on these Texas beds aquifers include riverine wetlands within 50 metres of a second order or greater channel.

eMDB_RS_08B (Ecosystems intermittently connected to aquifers with fresh salinity in fractured rock (limestone))

Groundwater is stored and transmitted in the fractures and weathered zones of otherwise relatively impermeable limestone. Groundwater may discharge from fractured limestone aquifers typically along foot slopes and in channels. This rule-set identifies potential GDEs intermittently connected to limestone aquifers with fresh salinity.

- Potential surface GDEs dependent on these limestone aquifers include lacustrine wetlands and palustrine wetlands.
- Potential surface GDEs dependent on these limestone aquifers include riverine water bodies.
- Potential surface GDEs dependent on these limestone aquifers include channels.
- Potential terrestrial GDEs dependent on these limestone aquifers include deep rooted regional ecosystems.
- Potential terrestrial GDEs dependent on these limestone aquifers include riverine wetlands.

Other mapping rule-sets

Other mapping rule-sets are a combination of attributes (e.g. geology, rainfall, etc.) that describe the drivers, processes and interrelationships of groundwater in a landscape based on local, expert knowledge. When applied to spatial data sets, these other mapping rule-sets identify the where groundwater is likely to occur at significant depth (e.g. 50 or more metres) in a landscape or where groundwater is likely to be absent in a landscape.

eMDB_RS_09 (Exclusion zones)

For the Queensland GDE mapping program, exclusion zones are areas with low permeability surfaces. There is little or no infiltration in exclusion zones as water usually quickly runs off these areas. Consequently there is not enough groundwater in exclusion zones to support GDEs.

Citation

Queensland Government (2017) *Groundwater dependent ecosystem mapping rule-sets for the eastern Murray-Darling Basin: version 1.5*, Queensland Government, Brisbane.