

Summary of community responses on the South West Healthy Waters Management Plan—June 2012

Q. Which catchments will be covered by the South West Healthy Waters Management Plan (SWHWMP)?

A. The SWHWMP will cover the surface water and groundwater in the following catchments:

- Bulloo River
- Warrego River
- Nebine Creek
- Paroo River
- Wallam Creek
- Mungallala Creek

Q. What is the purpose of developing the SWHWMP?

A. To identify environmental values for aquatic ecosystems and for human uses (e.g. water for drinking, farm supply, agriculture, industry and recreational use) and to determine water quality guidelines and water quality objectives to enhance or protect these values and uses.

Q. Why do we identify waters of high ecological value (HEV)?

A. To maintain the condition of HEV waters. The Australian and New Zealand Guidelines for Fresh and Estuarine Water Quality (ANZECC 2000) and the Queensland Water Quality Guidelines 2009 outline how aquatic ecosystems can be subdivided into different levels of protection, depending on their condition.

The four levels of protection are:

- HEV waters—waters in which the biological integrity of the water is effectively unmodified or highly valued
- slightly disturbed waters—waters that have the biological integrity of HEV waters with slightly modified physical or chemical indicators, but effectively unmodified biological indicators
- moderately disturbed waters—waters in which the biological integrity of the water is adversely affected by human activity to a relatively small but measurable degree. This level of condition represents a significant proportion of Queensland waters
- highly disturbed waters—waters that are significantly degraded by human activity and have lower ecological value than HEV waters or slightly or moderately disturbed waters. No highly disturbed waters have been identified in the South West region.

Section 14 of the Environmental Protection (Water) Policy 2009 states how waters in each of these different levels of protection should be managed. These matters must be considered when decisions are being made under a regulation about the release of waste water into receiving waters.

Q. What datasets were used to identify HEV and slightly disturbed waters?

A. The datasets that were used to contribute to the identification of HEV and slightly disturbed waters are:

- HEV—protected estates (primarily national parks) Currawinya Lakes Ramsar site, drought refugia identified through studies by a consultant, wetlands of high ecological significance identified under State Planning Policy, buffered area around springs and select sites identified through the Aquatic Biodiversity Assessment and Mapping Method (AquaBAMM) study.



AquaBAMM uses criteria, indicators and measures to assess conservation value in aquatic ecosystems. The specific measures used to identify high ecological value waters were:

- 1.3.3 State of the Rivers aquatic habitat condition,
- 2.2.4 State of the Rivers riparian vegetation condition,
- 2.3.3 per cent vegetation land-use area (i.e. native vegetation and regrowth) and
- 2.2.1 per cent area remnant vegetation relative to pre-clearing extent within buffered riverine wetland or watercourses.

More information on AquaBAMM can be found on the Department of Environment and Heritage Protection (EHP) website at www.ehp.qld.gov.au.

- Slightly disturbed—protected estates (conservation parks, state forests, forest reserves, timber reserves), Directory of Important Wetlands, select wetlands of high ecological significance identified under State Planning Policy, nature refuges and sites identified through the AquaBAMM study.

Q. Why are national parks highlighted as HEV?

A. National parks are protected under the *Nature Conservation Act 1992*. Section 17 (1a) of this legislation specifies that a national park is to be managed to provide, to the greatest possible extent, the permanent preservation of the natural condition and the protection of cultural resources and values of a national park. As a result, the waters in national parks are typically highlighted as HEV. Local input from national park rangers is sought if additional information is required.

Q. What is the role of environmental values and water quality objectives in managing development activities?

A. In the South West NRM region, environmental values and water quality objectives will be considered in the Development Approval and Environmental Authority process for proposed developments that may impact water quality through industry point source or urban diffuse emissions (regulated activities). Point source emissions are regulated under the *Environmental Protection Act 1994*. Urban diffuse emissions are regulated under the State Planning Policy for Healthy Waters under the *Sustainable Planning Act 2009*. Environmental values and water quality objectives also support and inform non-statutory natural resource planning and management activities.

Through the consideration of environmental values and water quality objectives in the development approval and environmental authority process, conditions can be placed on regulated activities to reduce or avoid potential impacts to water quality. This will assist in the protection of the values and uses for waters in the South West region.

Activities on rural lands that affect rural diffuse emissions are not subject to approvals under the *Environmental Protection Act 1994* in the South West NRM catchments.

Q. What are the implications of having high ecological value or slightly disturbed waters on your property?

A. There will be no implications for activities on rural lands that are not subject to regulation. For a regulated activity, it is the management intent for the waters that the decision to release the waste water or contaminant must ensure the following:

- for high ecological value waters—water quality indicators for all environmental values are maintained;
- for slightly disturbed waters—slightly modified physical or chemical water quality indicators are progressively improved to achieve the water quality objectives for high ecological value water.

Q. What are examples of environmentally relevant activities (ERAs)?

A. ERAs (regulated activities i.e. activities that require some form of licensing) are listed under Schedule 2 of the Environmental Protection Regulation 2008.

Examples include:

- aquaculture and intensive animal industry
- chemical, coal and petroleum products activities, energy related services
- extractive activities
- fabricated metal product activities
- food processing
- metal production and mineral processing activities

- miscellaneous activities
- non-metallic mineral product manufacture
- sawmilling, woodchipping and wooden product,
- manufacturing, transport and maritime services
- waste management
- water treatment services.

For more details refer to Schedule 2 of the Environmental Protection Regulation 2008 available online at www.legislation.qld.gov.au/LEGISLTN/CURRENT/E/EnvProtR08.pdf.

Q. I have grazing stock in the paddock next to a river, will the implementation of environmental values and water quality objectives affect me?

A. No. Grazing in the South West region is not listed as an ERA under Schedule 2 of the Environmental Protection Regulation 2008.

Landowners with grazing stock may assist South West NRM Ltd in implementing management strategies to improve water quality under the SWHWMP. However, this will occur on a voluntary basis only.

Q. What is the impact of the water quality guidelines if the waterway is not flowing?

A. The draft water quality guidelines have been developed for base flow conditions. Development approvals or environmental authorities seeking to release contaminants to waterways would be assessed in regard to the level of flow. In addition, some management strategies under the Healthy Waters Management Plan may be identified by South West NRM Ltd as applicable under conditions other than base flow.

Q. What is considered a 'good range' for each of the water quality guideline indicators and how do these compare across catchments?

A. The draft water quality guidelines seek to establish the type of surface water and groundwater quality that naturally occurs in the South West region. Therefore, values are typically not compared to other regions, as they are specific to the South West region only. The water quality guidelines set the benchmark to detect changes in water quality. The frequency and extent of change from guideline values are primary considerations for assessing performance against the guidelines. Refer to Section 5.1 of the Queensland Water Quality Guidelines 2009 for further information on assessing compliance with water quality guidelines.

Q. Is a permit required to remove logs from waterways?

A. Under the *Water Act 2000*, a riverine protection permit is required to destroy vegetation, excavate, or place fill within a watercourse, lake or spring. For more information on exemptions, best practice principles to adopt and restoring a watercourse for disaster recovery refer to the former Department of Environment and Resource Management website at www.derm.qld.gov.au/water/management/rpp.html.

It should be noted that logs provide important habitat for aquatic fauna such as fish. Siltation of waterholes has been noted as a water quality issue in the South West region. The cause of siltation in waterholes will be investigated through the SWHWMP to develop recommended management responses.

Q. Will local groundwater quality guidelines be developed for South West region?

A. EHP is reviewing groundwater data with the aim of establishing groundwater quality guidelines for the South West region. It is intended that the draft local groundwater quality guidelines will be available for feedback at the final round of community consultation in South West region in early 2013.

Q. How is this process linked to a water resource plan and resource operations plan?

A. Water resource planning is conducted under both Commonwealth and State legislation. Under section 47 of the *Water Act 2000*, the minister responsible for water resource plans must consider environmental values in the preparation of a draft water resource plan. The *Water Resource (Warrego, Paroo, Bulloo and Nebine) Plan 2003* and associated resource operations plan are the key water resource planning documents for the South West region. These documents are soon to undergo a review, in which the South West community will be consulted. The SWHWMP is planned to address the water quality component of water resource planning in this region. Officers of the Queensland Government departments responsible for environmental values and water resource plans have been working together to manage this alignment. The SWHWMP is not a replacement for the water resource plan and resource operations plan.

Q. Is this process being driven by the proposed Murray-Darling Basin plan?

A. No. Water quality for Queensland waters is managed under the *Environmental Protection Act 1994* and the Environmental Protection (Water) Policy 2009. This legislation provides the framework for establishing environmental values, water quality objectives and healthy waters management plans for Queensland waters. However, the work under the SWHWMP process will address water quality specifications for catchments included in the Queensland Murray-Darling Basin region.

Q. Where else is this process occurring in Queensland?

A. Environmental values and water quality objectives are being progressively established for all Queensland tidal waters, non-tidal waters and groundwaters. This process is being progressively implemented across the whole of Queensland under state legislation. The Queensland Government has completed this process in Moreton Bay/South East Queensland, Mary River Basin/Great Sandy Region, Wet Tropics (in part) and the Fitzroy Basin. In addition to the South West region, this process is also underway in other areas such as the Mackay–Whitsunday region, Townsville region, and all Queensland Murray–Darling Basin catchments.

Q. Can local councils provide water quality monitoring data?

A. Yes, if available. Where local councils are registered service providers, water quality monitoring data collected under the *Water Supply (Safety and Reliability) Act 2008* and *Water Act 2000* will be used to assist local water quality guideline development.

Q. What management responses to water quality issues will be implemented under the SWHWMP?

A. Under the South West Healthy Waters Management Plan, management responses to water quality issues identified by the community and through condition assessments will be developed in collaboration with stakeholders. This stage of the development of the SWHWMP will be conducted by South West NRM Ltd over the coming months. The community will then be provided with an opportunity to provide input and direction on the proposed management responses. Examples of management responses included in water management plans in other areas of Queensland include promotion of best practice land management techniques and control of pest species.

Q. Is it mandatory that I implement management strategies to improve water quality with South West NRM Ltd?

A. No. Assisting South West NRM Ltd with implementing management strategies to improve water quality on your property is entirely voluntary. However, the establishment of environmental values and water quality objectives informs the preparation of farm management systems and other best practice frameworks and land management agreements under the State Rural Leasehold Land Strategy that may assist in the determination of due diligence with regards to general environmental duty.

Q. What is the length of time surface water quality samples were taken to develop the draft guidelines?

A. The data used to derive local water quality guidelines for the South West region was brought together from a range of monitoring programs conducted by South West NRM Ltd and the Queensland Government. The data record used to develop the guidelines predominately spans from the late 1960s until 2010. Data was less abundant for the Mungallala, Wallam and Nebine Creeks, however guideline values were still able to be developed. In regard to the latter, funding is being sought to conduct additional water quality monitoring in the South West region.

Q. How are water quality sites chosen?

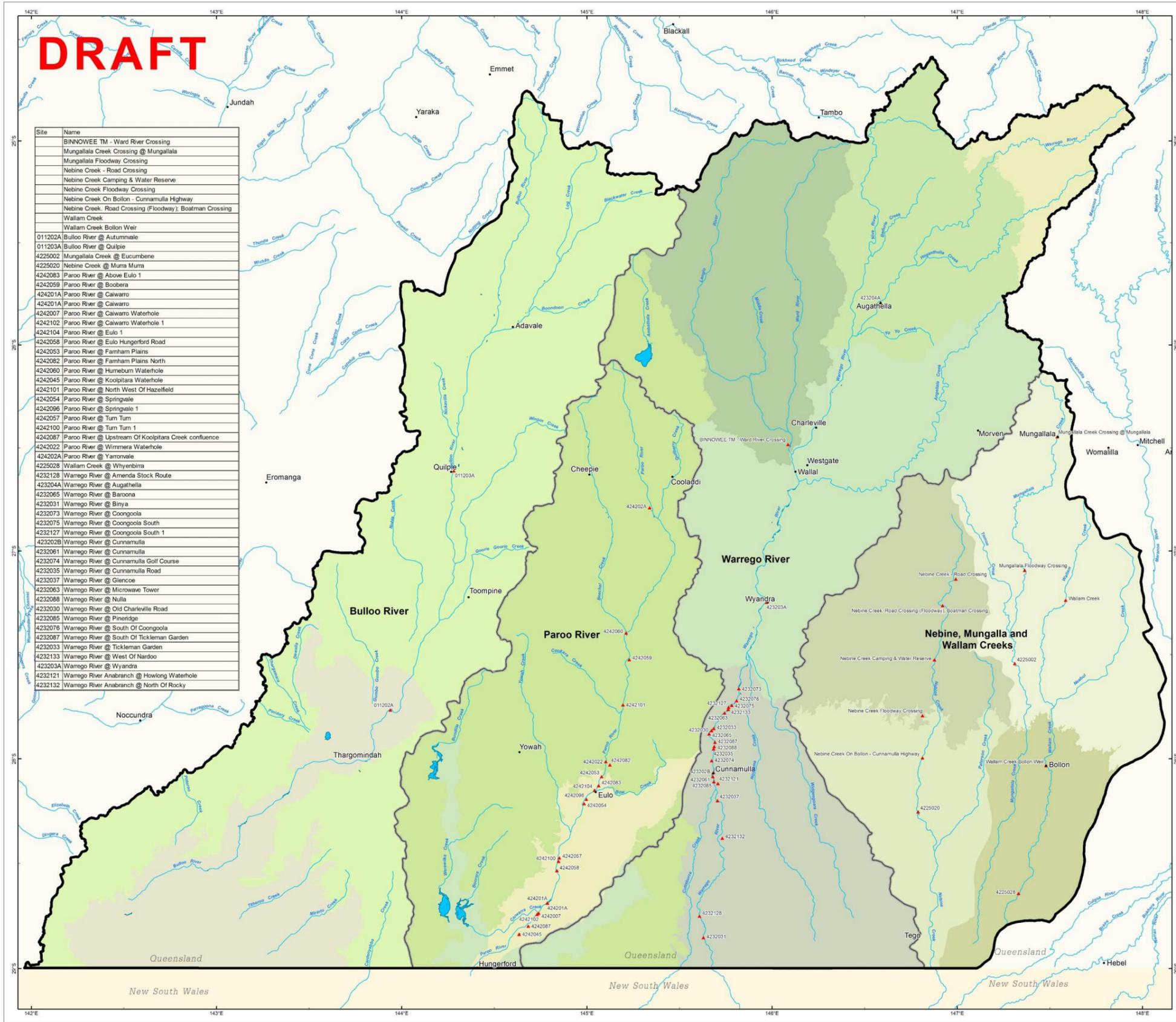
A. Water quality sites are selected by scientists when developing monitoring programs. A selection of sites is chosen to represent the region as a whole. Through time, additional sites may be added to the dataset to expand the coverage. Additional monitoring is proposed in the South West region in future to enhance the existing water quality monitoring coverage.

Q. Where are the surface water quality samples taken from to derive the aquatic ecosystem guidelines?

A. Draft surface water quality aquatic ecosystem guidelines were developed for each water type. Water types are displayed as the coloured sections on the map below. The Queensland Water Quality Guidelines 2009 define water types as areas where water quality is sufficiently consistent that a single guideline value can be applied to all waters within the water type. The water types for the South West NRM region were developed by water quality scientists from the Department of Science, Innovation, Technology, Innovation and the Arts with expert local knowledge of the area. The map below also highlights the key monitoring sites that were used to derive draft surface water quality guidelines for each water type. As the Carnarvon Sandstones water type extends into the Queensland Murray-Darling Committee area, draft surface water quality guidelines will be developed in consultation with this NRM group. Draft surface water quality guidelines for the Paroo Salt Lakes will be derived from journal articles focused on this area.

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Site	Name
	BINNOWEE TM - Ward River Crossing
	Mungallala Creek Crossing @ Mungallala
	Mungallala Floodway Crossing
	Nebine Creek - Road Crossing
	Nebine Creek Camping & Water Reserve
	Nebine Creek Floodway Crossing
	Nebine Creek On Bolton - Cunnamulla Highway
	Nebine Creek, Road Crossing (Floodway); Boatman Crossing
	Wallam Creek
	Wallam Creek Bolton Weir
011202A	Bulloo River @ Autumale
011203A	Bulloo River @ Quilpie
4225002	Mungallala Creek @ Eucumbene
4225020	Nebine Creek @ Murra Murra
4242083	Paroo River @ Above Eulo 1
4242059	Paroo River @ Boobera
424201A	Paroo River @ Calwaro
424201A	Paroo River @ Calwaro
4242007	Paroo River @ Calwaro Waterhole
4242102	Paroo River @ Calwaro Waterhole 1
4242104	Paroo River @ Eulo 1
4242058	Paroo River @ Eulo Hungerford Road
4242053	Paroo River @ Farnham Plains
4242082	Paroo River @ Farnham Plains North
4242060	Paroo River @ Humebum Waterhole
4242045	Paroo River @ Koolpitara Waterhole
4242101	Paroo River @ North West Of Hazelfield
4242054	Paroo River @ Springvale
4242096	Paroo River @ Springvale 1
4242057	Paroo River @ Turn Turn
4242100	Paroo River @ Turn Turn 1
4242087	Paroo River @ Upstream Of Koolpitara Creek confluence
4242022	Paroo River @ Wimmera Waterhole
424202A	Paroo River @ Yarronvale
4225028	Wallam Creek @ Whybenbira
4232128	Warrego River @ Amenda Stock Route
423204A	Warrego River @ Augathella
4232065	Warrego River @ Baroona
4232031	Warrego River @ Binya
4232073	Warrego River @ Coongoola
4232075	Warrego River @ Coongoola South
4232127	Warrego River @ Coongoola South 1
423202B	Warrego River @ Cunnamulla
4232061	Warrego River @ Cunnamulla
4232074	Warrego River @ Cunnamulla Golf Course
4232035	Warrego River @ Cunnamulla Road
4232037	Warrego River @ Glencoe
4232063	Warrego River @ Microwave Tower
4232088	Warrego River @ Nulla
4232030	Warrego River @ Old Charleville Road
4232085	Warrego River @ Pineridge
4232076	Warrego River @ South Of Coongoola
4232087	Warrego River @ South Of Tickleman Garden
4232033	Warrego River @ Tickleman Garden
4232133	Warrego River @ West Of Nardoo
423203A	Warrego River @ Wyandra
4232121	Warrego River Anabranch @ Howlong Waterhole
4232132	Warrego River Anabranch @ North Of Rocky



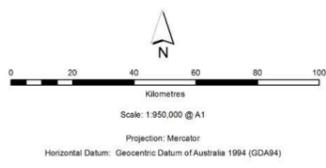
Draft South West Natural Resource Management sites used in deriving Water Quality Guidelines

This plan is for discussion purposes ONLY.



- Legend**
- Town
 - Water Quality Guideline site 2012
 - River / creek
 - Subcatchment boundary
 - Catchment boundary
 - Basin boundary
 - South West NRM boundary
- Draft South West NRM Watertypes**
- Bulloo Uplands
 - Bulloo Lakes
 - Paroo Uplands
 - Paroo Lowlands
 - Paroo Salt Lakes region
 - Cameroo Sandstones
 - Upper Warrego
 - Ward/Largo Rivers
 - Mid Warrego
 - Lower Warrego
 - Upper Nebine
 - Lower Nebine Creek
 - Upper Mungallala/Wallam Creeks
 - Lower Mungallala/Wallam Creeks

- Key to Environmental Values**
- Native Ecosystems
 - Irrigation
 - Farm Bore
 - Stock Water
 - Artesian
 - Human
 - Cosmopolitan
 - Primary
 - Secondary
 - Recreation
 - Cultural & Spiritual Values
 - Recreation



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