

District Council of Orroroo Carrieton



DISTRICT COUNCIL OF
ORROROO/CARRIETON
Southern Flinders Ranges • Established 1997

ORROROO WATER QUALITY PROJECT

**Submission to ESCOSA in response
to Draft Determination**

March 2016

CONTENTS

- 1.0 INTRODUCTION**
- 2.0 CUSTOMER SURVEY AND CONSULTATION**
- 3.0 COMMUNITY FACILITIES AND INFRASTRUCTURE**
 - 3.1 Orroroo Hospital and Community Home (Aged Care Facility)**
 - 3.2 Orroroo Area School**
 - 3.3 Community Facilities and Infrastructure**
- 4.0 RESIDENTIAL PROPERTIES**
- 5.0 LOCAL BUSINESSES**
- 6.0 COMMUNITY CLUBS, GROUPS AND ORGANISATIONS**
- 7.0 TOURISM AND ECONOMIC DEVELOPMENT**
- 8.0 CONCLUSION**

ATTACHMENT 1

Sample of surveys received from Individuals, Clubs and Businesses

1.0 INTRODUCTION

The following submission is forwarded to the Essential Services Commission of SA (ESCOSA) in response to the draft determination on the proposed Orroroo Water Quality Project by SA Water.

In preparing the submission, the following information is considered relevant as background information.

The District Council of Orroroo Carrieton along with the Community has been actively lobbying SA Water for the past 16 years to improve the water quality in the township of Orroroo, which has been based on the following primary factors:

- The Township of Orroroo is a key service centre for the District with the quality of the water affecting the collective and wider community and provides essential services to tourists travelling through the region
- Residents, Business owners and Community Organisations as SA Water customers within the town have been paying unsubsidised (full) water rates for an inferior water supply that many do not use as the primary water source due to its poor quality and salinity (1,900 mg/l)
- The water is unpleasant to drink and therefore is not used as a potable water supply by residents and business owners, with the Australian Water Drinking Guidelines of 2011 establishing an acceptable salinity level of 1,200 mg/l
- Residents and businesses have invested considerable money in establishing and maintaining rain water storage and pumping infrastructure for the purpose of a primary water supply to their premises, including drinking supply
- Rainwater supply's are reliant on adequate rainfall and seasonal conditions, with the supply for use as drinking water being untreated and therefore an uncontrolled source
- Food preparation businesses, such as Hotels and Cafes, refuse to use the SA Water mains water supply due to its aesthetic taste and choose to use rainwater that requires specific treatment to meet the Food Handling Standards at a cost to their business
- The corrosive nature of the water and its affect on condition of pipes and infrastructure, in particular hot water services when heated, and the cost to continue to replace infrastructure
- Continuing issues with maintaining sporting fields, public spaces and other essential and key community facilities to a standard that is considered safe for use and acceptable to users

In preparing the submission, the Council recognises the following:

- The quality of the water supply does comply with the AWDG health criteria, however further emphasises that the water supply does exceed the aesthetic salinity level for potable water
- The results of the original water customer survey were poor with only 30% of customers returning the survey and further only 30% of those returning the survey indicating they would use the mains water as the primary drinking source

To conclude, the following submission addresses the above issues from a Community perspective and provides the results of the recent customer survey and public forums held by SA Water.

2.0 CUSTOMER SURVEY AND CONSULTATION

Since the draft determination released by ESCOSA, SA Water in conjunction with Council arranged a community information forum that was held on 23rd February 2016 and re surveyed the community.

The public information forum was well attended by over 100 residents who were provided with additional information from SA Water on the proposed pipeline extension from Peterborough. In addition, those attending were able to taste test water from various water supplies, including water from the Peterborough Township and the Orroroo water supply. From the taste test residents commented and noted the improved taste of the Peterborough water over and above other water supplies, not to mention the Orroroo water supply.

Further to the public meeting, a new community survey was undertaken with survey forms to be returned to Council or SA Water by 4th March 2016. The following details the survey responses:

A total of 348 surveys were received, as were a number of detailed submissions.

Respondents were asked;

“If the quality of mains water (SA Water supply) was improved would you use this as your primary drinking water?”

- 340 respondents answered ‘Yes’ they would use mains water as a primary drinking water source if water quality was improved.

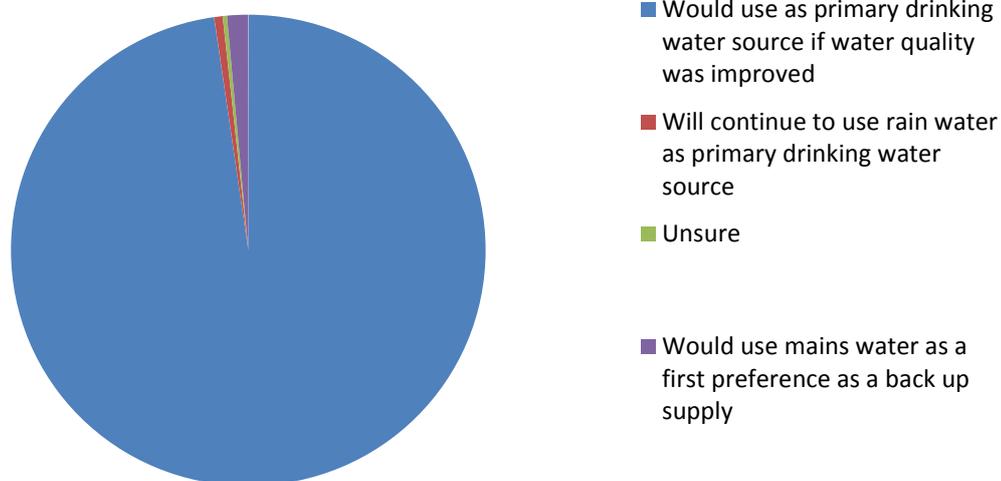
For respondents who answered ‘No’, they were asked;

“Would you use mains water as your first preference as a back up supply to your rain water?”

- 5 Respondents answered ‘Yes’ they would use an improved drinking water source as a first preference back up supply.
- 2 respondents answered ‘No’ they will not use an improved water supply as a backup supply and
- 1 respondent answered that they were unsure.

The survey results are further illustrated in the following graph.

Primary Drinking Water Source Improved water quality



There are a number of reasons as to why the survey results have changed significantly, in particular the number of surveys received, which are summarised as follows:

1. Since the original survey was conducted, Orroroo has experienced long dry spells particularly from late spring through to early autumn that has resulted in a number of residents exhausting rain water supplies and needing to buy in water to replenish the supplies. (This approach is preferred by residents in lieu of using the town water supply).
2. The information that residents received at the public forums held on 23rd February 2016 provided additional information that further clarified the quality of water to be supplied with the extension of the pipeline from Peterborough.
3. The ability for residents to “taste” test the water to be supplied from Peterborough further alleviated concerns and changed the perspective of residents with regard to drinking the water as a primary source.
4. A number of residents are being faced with the need to upgrade their current rain water infrastructure, pumps and tanks, due to age and deterioration at a considerable cost.
5. Recognition that the improved water quality will provide future opportunities for the community, assist businesses and improve community facilities.

In support of the statistical analysis of the survey's, attached to the submission at Attachment 1 is a selection of surveys received and additional comments from residents, business owners and community organisations.

3.0 COMMUNITY FACILITIES AND INFRASTRUCTURE

The current water supply continues to have a significant effect on the operations and maintenance of key community facilities and infrastructure, with the following summarising the issues.

3.1 Orroroo Hospital and Community Home (Aged Care Facility)

The Orroroo Hospital and Community Home are major facilities that support the community through the provision of health and aged care services. The ongoing operations and maintenance of the facilities is continually impacted by the poor quality of the water supply.

Over a number of years, Country Health SA has invested considerable funding to establish rain water catchment and supply throughout the Hospital in particular to reduce the corrosion of pipe infrastructure. Unfortunately due to the large volume of water used at the Hospital, the rain water supply is not sufficient and therefore the mains water is continually used, particularly through hot water services. Due to the corrosive nature of the water when heated, special anode rods are used in the hot water service units which are replaced annually.

In addition, due to rain water being an uncontrolled water source for drinking and the town water supply is not suitable for drinking; both the Hospital and Community Home rely on bottled water for drinking supplies which is at a considerable cost.

The benefit of the improved water quality will in effect mean that Country Health SA will reduce operating costs at the Hospital and Community Home due to infrastructure lasting longer, will reduce the reliance on rain water catchment and use, and will be able to use the water as a primary drinking source.

3.2 Orroroo Area School

The Orroroo Area School, as per the submission forwarded by the Principal Paul Pitkin, provides drinking water to students from rain water tanks that require UV filters to be installed and maintained to ensure the quality is maintained within standards.

In addition, an improved water supply will assist with the operations of the commercial/industrial home economics facility at the school with food preparation and longevity of equipment. Currently rain water is used through out the facility though its use is limited by storage capacity and catchment that is subject to sufficient rainfall.

Again, the benefit of the improved water supply will reduce the operating and infrastructure replacement costs of the school, not to mention will ensure a controlled drinking water supply to be provided.

3.3 Community Facilities and Infrastructure

The Council experiences a number of issues with maintaining community facilities and infrastructure due to the poor quality of the town water supply. These include:

- Ongoing replacement of pipe and pump infrastructure at the Orroroo Swimming Pool along with additional costs to maintain water quality within specified standards for the pool operations

- Maintenance of key community facilities including the Orroroo Oval, with the current water supply proving to be inadequate to maintain the oval at a suitable standard for use. In addition, there is considerable cost in maintaining irrigation infrastructure at a suitable operational level due to the corrosive nature of the water supply, with pipes, taps and solenoids needing to be replaced regularly. (For information, once a summer rain event is experienced the oval surface improves considerably)
- Maintenance of public toilets and conveniences is also impacted by the quality of water, again due to the ongoing need to replace taps and other pipe infrastructure

These issues and costs associated with maintaining infrastructure essential to maintaining adequate community facilities is a direct cost to the community. With an improved water supply the costs will reduce and quality of the community facilities and infrastructure provided will improve.

4.0 RESIDENTIAL PROPERTIES

As seen from the comments made by residents and individuals, the current status of the water supply is having an impact on their daily lives and household infrastructure. With all properties currently relying on rain water for drinking water and a non corrosive water source to use in hot water services, washing machines and other appliances, the security of the water supply is subject to seasonal conditions.

As stated in the introduction, a number of residents within Orroroo need to buy in water during lengthy dry spells due to concern with using the current town water supply within their homes. Further, due to the age of pumps and rain water tanks a number of residents will soon be confronted with expensive replacement costs for such infrastructure. This is considered unjust in view of the fact that all residents are paying full water supply charges.

The improvement, as demonstrated by the recent community survey, will enable residents to use the town water supply within their homes, which will include for drinking. This will alleviate pressure on residents to continue to maintain rain water infrastructure as the primary water source for their homes and the need to buy in water during times of shortage. In addition, it will further mean that all residents will have access to a reliable and treated water supply for drinking instead of an uncontrolled rain water source.

5.0 LOCAL BUSINESSES

The current impact on local businesses resulting from the current water supply is significant, with a number of businesses utilising rain water where possible as the primary source. This approach has a number of problems such as maintaining an adequate water supply to meet demands and quality of water to meet Food Safety Standards that requires rain water to be boiled.

Where local businesses utilise the current water supply for use in hot water systems, washing machines and generally throughout their premises there is considerable costs associated with continued replacement of equipment, appliances and infrastructure again due to the corrosive nature of the water.

In effect the current water supply is holding back local businesses from expanding their operations and restricting the ability to be more efficient.

From the surveys returned, the main comments from business owners relate to the cost of replacing taps and fittings, repairs to equipment, and a consistent comment from the two Hotels stating that drinking water for patrons is supplied via bottle water which is at an additional cost.

The upgrade to the water supply will simply fix the concerns of the local businesses, will improve efficiency, reduce costs, enable expansion and mean that food businesses will automatically meet the Food Safety Standards.

6.0 COMMUNITY CLUBS, GROUPS AND ORGANISATIONS

All Community Clubs, Groups and Organisations that own and control facilities, such as the football club, netball/tennis clubs, bowling club, golf club, CWA, are further impacted by the current water quality.

As per the issues and concerns raised by residents and businesses, these Clubs, Groups and Organisations experience the same problems, with all Organisations installing rainwater systems to reduce the need to use the water supply in hot water services, dishwashers and other appliances, and the need to provide bottled water for drinking. Further as these Organisations are involved in food preparation, then additional procedures and measures need to be in place to ensure Food Safety Standards are met. All of the above impact on the growing financial pressures experienced by the Clubs, Groups and Organisations, as it is the members who are mainly residents of the town are required to meet the costs.

Therefore, simply the upgrade of the water supply will resolve the issues and concerns facing the Clubs, Groups and Organisations.

7.0 TOURISM AND ECONOMIC DEVELOPMENT

The current water supply has a profound affect on tourism and economic development within the town. It is not a “good look” when tourist visiting the town are advised “do not drink the water”. This message spreads by word of mouth and with a future strategy for the long term sustainability of the District being to encourage, promote and further establish tourism; it is paramount that the basic infrastructure is provided at a suitable standard to all visitors alike. In fact now our claim to fame is that Orroroo will have the worst water in the State, not something that the community wants to promote.

Economic development is affected by the current water supply as there have been over the years a number of businesses interested in establishing in Orroroo, however the quality of water has not been at the required standard to sustain the businesses. With the township having a reliable power supply, excellent transport linkages and other important infrastructure, it is water that impacts on the ability to encourage growth.

Residential development and choice of retirement is also effected by the current water supply, with individuals making decisions to reside in other towns that have a better water supply. With areas of land zoned for residential development, it is difficult to encourage development to occur again due to the water supply.

Simply the improvement to the water supply will mitigate the problems experienced in the past that have stifled development opportunities.

8.0 CONCLUSION

To conclude, in direct response to the published determination that highlighted the lack of response by water customers to the original survey, the current survey results clearly demonstrate that Community has reconsidered its position with the passage of time and support the water quality project; and importantly will drink the water.

With the improvement in the quality of the water, the impediments that currently restrict the community to grow, businesses to be more cost effective and expand, and the reduced operating costs of key community facilities and infrastructure, will simply be resolved.

It is fair to say that based on the community response, the water usage within the community will increase as more residents will convert their household systems to utilise the SA Water supply throughout their homes, therefore improving the economic argument in support of the pipeline extension.

In closing, the improvement in the quality of water in Orroroo has been a long time coming and the community has demonstrated its support for the Project to proceed.

The Council therefore encourages ESCOSA to review its draft determination on the Orroroo Water Quality Project and state that in view of the community support demonstrated it is prudent for the Project as proposed by SA Water to proceed.

ATTACHMENT 1

Sample of Surveys received from Individuals, Clubs and Businesses



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Josh Clark*

Address: *38 Sixth St, Orroroo.*

Please indicate the average number of occupants usually residing at your property on a daily basis <i>(please circle)</i>	1 2 3 4 5-10 >10 <i>(if >10 please specify number)</i>
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS *(attach additional papers if required)*

I have a Cattle Feedlot outside of Orroroo and a proposed pipeline will benefit my business and improve it.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Darren Quinn*
Address: *30 Secora*

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 (if >10 please specify number <i>..25</i>)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other <i>Bottles</i>
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	--

ANY OTHER COMMENTS (attach additional papers if required)

need good water for cleaning
motel/Hotel sheets & towel,
rooms need drinking water,
we supply bottle water to our
customers at an expense we
dont need. Main drinkable water
would be alot better.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Dennis Meats P/L*
 Address: *19 Thirtieth Street, Orroroo.*

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

Yes

No

ANY OTHER COMMENTS (attach additional papers if required)

I spend thousands repair equipment due to the water!!

Steam Cleaners

Bath Flow devices.

Tap & Plumbing

Sanitizers.

Washing Machines

Hot Water Services

Boat Washes.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Maggie's Rendevous*
Address: *12 SECOND STREET ORROO*

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1	2	3	4	5-10
	>10 (if >10 please specify number) <i>Business > 50 visitors per day</i>				
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other				
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS *(attach additional papers if required).*

If we had a reliable supply of drinking water our business would be able to run more efficiently.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Orroroo Golf Club*

Address: *West Tce Orroroo*

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 NA >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS *(attach additional papers if required)*

If mains water was potable, it would be used throughout the clubrooms - for drinking, through the hot water system & in the showers. At present this is not possible due to the corrosion caused by the highly mineralized water. Our rain water tank ran dry this year causing us to transport drinking & water for the hot water system in.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Orroroo Caravan Park
Address: Second St. Orroroo

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 <i>(if >10 please specify number)</i>
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

3
>10

Varies each night

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

The current poor quality of the mains supply corrodes the taps and fittings and scales the toilet pans. These taps and fittings require frequent replacement. The hot water services (of which there are 6 in the park) need to be replaced far too often as the scale builds up in the tank. This is a unnecessary expense to the business.

Visitors / tourists to the park comment on the extremely poor water quality we have.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Michele Catford.

Address: 3919 Willowie Rd Morchard. Orroroo

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

Quality of water not only effects the people living in the town but all the community as it effects ^{all} of services. which we use. ie. Kindy, School, Hospital, Shops. All Sporting bodies. adding extra cost. to all of these runnings. properties.

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

From the Board

ANY OTHER COMMENTS (attach additional papers if required)

THE Orroroo Bowling Club has fifty four members. We participate in the North Western Bowling Association. Permanent members are played 3 times per week. Because of the poor quality mains water the club purchases large bottle water for its "water cooler" for bowls to drink. We are the only club that cannot pump coolers directly to mains. Our rain water storage is used to operate flap water in cold/hot water services & glass washers. If we run our mains water through these items the cost of replacement for a small club is prohibitive.

THE CLUB BOARD AND MEMBERS WOULD CERTAINLY APPRECIATE HAVING A POTABLE AND DRINKABLE SUPPLY ON HAND.

L.M. Hempster, Kathy
 Nat Green

R. W. ...
 L.A. Schmidt

[Signature]
 [Signature]

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

Yes

No

ANY OTHER COMMENTS (attach additional papers if required)

The school is reliant on rainwater for its potable water supply, however this means the school has to shut down when there is a power outage as it is totally pressure pump reliant. Imagine the impact to education and families when faced with a school shut down!

At Orroroo Area School

I run a commercial kitchen, that opened in 2012, for training students of all ages in Food related skills. Initially, there was a water connection problem and the Mains water supply entered the supply. Apart from the obvious palatability problems for all food and drinks prepared, there were immediate ~~potentially~~ catastrophic consequences, that very nearly shut down the building in its first month of opening. \$5,000 espresso coffee machine with filter blockage, white residue visible and flow constriction

\$15,000 Bakers oven (with steam injection, direct plumbed) showing a buildup of scale on interior surfaces.

\$20,000 Rational Combi oven (self cleaning, direct plumbed + drained) showing buildup of scale, drainage problems, error messages on computer system, unable to be used with water at all.

\$5,000 Passthrough dishwasher, not cleaning dishes with normal soiling on equipment.

To activate a response from maintenance staff I collected water and had it tested (21-2-2012) and the water was 2800 microseimens (1792 PPM) according to PIRSA, Jamestown.

Service personnel for all of the above equipment, reported problems related to the water, that if the supply had continued beyond the 4 weeks after opening, would have necessitated replacement.

At the same time I was the teacher responsible for teaching vegie growing. The water supply at the same time was 3130 microseimens

and was constantly blocking up the dripper irrigation system I installed to prevent the water splashing on foliage. It wasn't very inspiring teaching young people that they could only grow a very limited range of vegetables because of water salinity.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrleton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: **LAWRENCE SIMS**
 Address: **11 EIGHTH ST ORROROO.**

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

Yes

No

ANY OTHER COMMENTS (attach additional papers if required)

The use of current town water destroys pipe fittings and brass taps and I would refuse to use current town water through a hot water system current use of town water in a hot water system gives it a life of less than five years

I managed the Orroroo Swimming Pool for ten years and it was impossible to maintain the Pool to Health Department Specifications due to the impurities in the town water supply.

Lawrence Sims



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Hannah Bowman

Address: 7 Park Tee, Orroroo (currently moving/building)

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

We are currently in the process of ^{looking to build} building in town. At our Park Tee residence we had rain water. Our new block only has mains... this currently is a great disappointment given the appalling quality. We have looked at sinking a bore for our garden and @ rainwater tanks for drinking. All at a massive cost. If the water quality improved greatly we would certainly use it to drink. It would help us alot with our decision to build in town as we are also looking at moving to a rural property. The current water quality is certainly off putting as we have seen the damaging effects it has on pipes, toilet fittings, washing machines etc and gardens!! Having decent mains water would be life changing... if you feel that statement is over the

top, you should personally taste our current water. And Im sure many residents would be happy to show up the damages made to house & garden by current



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Leo Stone
 Address: 12 Fourth St
Orroroo SA

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number <u>6...</u>)
Do you have Rain water?	<input type="checkbox"/> Yes — <u>1. Tank</u> <input checked="" type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input checked="" type="checkbox"/> Other <u>We buy our water from IGA</u>
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

with kids with skin condition's that are sensitive the current water supply on mains is dangerous for them to use. They have to use skin cream's to become a little less sensitive to the harsh water.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: *Marg O'Loughlin*
 Address: *22 West Tce*
Orroroo

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	① 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other <i>is undrinkable!!</i>
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

- Yes
 No

ANY OTHER COMMENTS (attach additional papers if required)

AS THE MAINS WATER WE HAVE IS SO SALTY AND DAMAGING TO MY REFRIGERATIVE AIR CONDITIONER AND WASHING MACHINE/HOT WATER SERVICE/TAPS ETC, I USE MY RAINWATER RESERVE FOR THESE APPLIANCES AS WELL AS DRINKING. I RECYCLE THE RAIN WATER FROM THE WASHING MACHINE "RINSE" FOR MY GARDEN WHEN IT DOES NOT RAIN DRINKING WATER HAS TO BE ACCESSSED AT A COST.

IT WOULD BE MUCH APPRECIATED IF ONE COULD TURN ON A TAP FROM OUR MAINS AND USE IT FOR DRINKING



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au

Name: *MRS. FAYE CASE*
 Address: *38 EAST TCE,*
ORROROO SA 5431

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 ② 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <i>BUT A LIMITED Supply</i> <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <i>Definately</i> <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

WE HAVE LIVED IN ORROROO FOR THE PAST 12 MONTHS, SHIFTING INTO THE TOWN FROM THE FARM.
OUR HOUSE HAS S.A WATER THROUGHOUT, WITH ONE RAIN WATER TRAP OVER THE SINK, WHICH WE USE FOR DRINKING.
WE HAVE A LIMITED SUPPLY OF RAIN WATER, THEREFOR IF S.A WATER IS NOT PREPARED TO GIVE THE TOWN OF ORROROO A CONNECTION TO THE RIVER MURRAY WATER SUPPLY FROM PETERBOROUGH, WE WILL HAVE TO INSTALL MORE RAIN WATER TANKS AND USE THIS WATER AS OUR PRIMARY SOURCE OF WATER. VERY COSTLY, AS OLDER RESIDENTS NEED TO EMPLOY PEOPLE TO INSTALL TANKS.
WE HAVE ALREADY REPLACED OUR HOT WATER CYLINDER, AND NOW WE ARE USING RAIN WATER IN IT TO AVOID THE INEVITABLE REPLACEMENT.
THE ON GOING REPLACEMENT OF APPLIANCES, TAPS ETC. IS EXPENSIVE, PARTICULARLY FOR PEOPLE ON A SMALL FIXED INCOME.
IF ORROROO RECEIVES A WATER SUPPLY VIA A PIPELINE FROM PETERBOROUGH WE WILL DEFINATELY BE USING THIS AS OUR PRIMARY SUPPLY, AND I WILL FINALLY BE ABLE TO HAVE A GARDEN. (MORE WATER USAGE).



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: **JOHN O'DEA**
 Address: **10 WEST TCE ORROROO S.A 5431**

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

Yes

No

ANY OTHER COMMENTS (attach additional papers if required)

We would use the mains water as our first preference to drinking water as we don't have a great supply of rainwater (all good if it rains).
The ^{mains} water we have at the moment is not drinkable so we don't have a choice.
When we wash clothes now we use rainwater if we have enough because the clothes come out worse than when they were put in if we use mains water, and some stains can't be removed.
Hot water systems have a very short life due to the mains water we have at the moment.
Surely as ratepayers and taxpayers we have the right to palatable water.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Alison Sellwood
 Address: 4 Second Street, ORROROO.

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	--

ANY OTHER COMMENTS *(attach additional papers if required)*

I have small rainwater tanks and am constantly worried about our drinking water running out. I desperately want to be able to have mains water I can use.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: **KEN GIBB**
Address: **30 FIFTH ST., ORROROO**

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

<p>If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
--	--

ANY OTHER COMMENTS ^{*} *(attach additional papers if required)*

The mains water quality here in Orroroo is sub standard and needs to be improved. We are told that it meets the drinkable water standard required however it is far too offensive to the taste to drink. When a recent survey was conducted here, apparently only 30% of people responded and of those only 30% said that they would drink it if it were improved. We live in a town with an ageing population and this issue has been hanging for now 16 years. Our little town is getting old and tired of fighting this battle and many have already given up fighting the system and getting nowhere. It does not mean we have resolved ourselves to the fact that our water supply is somehow acceptable. As for the 30% who said they would drink mains supply water if it was improved, I firmly believe that not having experienced the taste of acceptable town water, the assumption was made that it would not be improved enough to drink. It was also noted that no consideration was given to the enormous cost for damage to property due to the corrosive nature of our water. I understand that there is the rest of South Australia to answer to but I doubt that the rest of the state would want to pay the same amount for their water if it tasted like ours.

Kind regards,

Ken Gibb [Orroroo resident]

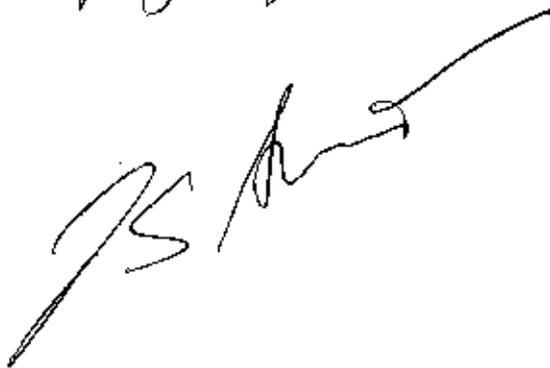
If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

- Yes
 No

ANY OTHER COMMENTS (attach additional papers if required)

The water I receive from town supply is undrinkable kills my plants & trees, has ruined two hot water systems in four years 3 washing machines even damaged my toilet system.

I am paying for nothing





Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: COLLEEN SHACKLIFORD

Address: 24 EAST TERRACE
 ORROROO SA 5431

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input checked="" type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

THE QUALITY OF THE MAINS WATER IS SO BAD IT HAS COST A SMALL FORTUNE IN TAPS, WASHERS, HOT WATER SYSTEMS, SHOWER HEADS. SHOWER A/COVERS ARE CONSTANTLY COVERED IN LIME SCALE AND EATS OUT THE GROUT, MORE EXPENSE. YET THE COST OF TOWN WATER IS CONSTANTLY ON THE INCREASE. WE WOULD NOT HAVE ENOUGH RAIN WATER IF THE HOUSE WAS CHANGED OVER TO RAIN WATER, AND GIVEN THAT THIS IS A MARGINAL RAIN FALL AREA, CHANGING OVER IS NOT AN OPTION



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au

Name: Kerry Ann Davies

Address: 35 Government Road, Orroroo, SA, 5431

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?

- Yes
- No

ANY OTHER COMMENTS *(attach additional papers if required)*

The water we currently have is disgusting, if we run out ^{of rain water} we need to buy water to drink, which has happened on several occasions and is quite costly. The town water we have now is so bad our animals can't even drink it.



Orroroo Water Quality Improvement Project

Water Use Survey

SA Water initiated a project to investigate a preferred water quality improvement solution for the Township of Orroroo. To better understand the townships water use behaviours please fill in the survey below as accurately as possible. If you have any comments or concerns please contact the District Council of Orroroo Carrieton on 8658 1260 or email council@orroroo.sa.gov.au.

Name: Jo-Anne Jesser
 Address: 42 Fourth Street
 Orroroo
 SA 5431

Please indicate the average number of occupants usually residing at your property on a daily basis (please circle)	1 2 3 4 5-10 >10 (if >10 please specify number)
Do you have Rain water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Do you have mains water? (SA Water supply)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is your current source of primary drinking water?	<input checked="" type="checkbox"/> Rain Water <input type="checkbox"/> Mains Water (SA Water supply) <input type="checkbox"/> Other
If the quality of mains water (SA Water supply) was improved would you use this as your primary source of drinking water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Orroroo Water Use Survey

If you answered 'No', would you use mains water as your first preference as a backup supply to your rain water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

ANY OTHER COMMENTS (attach additional papers if required)

At the moment our mains water is virtually unusable as it is non-potable, stains clothes therefore unable to be used for washing. It cannot be put through our hot water service as it will corrode it in ~ 18 months. Cannot use it for cooking as it tastes disgusting and leaves a residue on the surface.

We pay for 'Murray water', yet we do not access it at all at home or in our town, when we should be ~~if~~ able to.

If the quality of Mains water was improved we would use it for everything in our household, as our rain water supply at the moment does run out due to living in an area where there is low rainfall. Improved quality of mains water would definitely benefit our township of Orroroo, both in the household and in our local businesses.