













Rous County Council Regional Water Supply Agreement Liaison Committee

DATE	Tuesday, 28 August 2018
VENUE	Training Room Rous County Council Depot Kyogle Street, South Lismore
LUNCH	12:00pm
MEETING	12:30pm – 3:30pm

AGENDA

No.	Item	
1.	a) Attendance and apologies	
	 b) Minutes of previous meeting (27 February 2018).....	1-3
	 c) Action List – outstanding action items.....	4-6
2.	 Groundwater investigation (Presentation)	
3.	 Water loss summary.....	7-8
4.	 Drinking water stations	9-10
5.	 Review of developer servicing charges – secondary dwellings.....	11-17
6.	Sub Committee update:	
	 i). Review of possible transfer of Rous County Council water assets and retail customers to the constituent council	18-53
	 ii). Regional Demand Management status.....	54-59
	 iii). Regional Drought Management status	
7.	Risk mitigation update:	
	 i). Rocky Creek Dam – New bulkhead construction	
	 ii). Emigrant Creek Dam Anchor Project	
8.	 Emergency communication protocol (standing item)	60-61
9.	Meeting close Call for next meeting agenda items	

**DRAFT Minutes of the Rous Regional Water Supply Agreement
Liaison Committee**

Rous County Council Depot

27 February 2018

Primary invitees

<input checked="" type="checkbox"/>	Bridget	Walker	BSC
<input type="checkbox"/>	Peter	Rees	BySC
<input type="checkbox"/>	Garon	Clough	LCC
<input checked="" type="checkbox"/>	Rod	Haig	LCC
<input checked="" type="checkbox"/>	Johan	Schoonwinkel	RVC
<input checked="" type="checkbox"/>	Samuel	Curran	RCC
<input type="checkbox"/>	Belinda	Fayle	RCC
<input checked="" type="checkbox"/>	Michael	McKenzie	RCC
<input type="checkbox"/>	Brenda	Ford	RCC
<input checked="" type="checkbox"/>	Kylie	Bott	RCC
<input checked="" type="checkbox"/>	Anthony	Acret	RCC
<input checked="" type="checkbox"/>	Andrew	Logan	RCC

Secondary invitees

<input type="checkbox"/>	John	Truman	BSC
<input checked="" type="checkbox"/>	Dean	Baulch	BySC
<input type="checkbox"/>	Andrew	Swan	BSC
<input type="checkbox"/>	Phil	Holloway	BySC
<input type="checkbox"/>	Angela	Jones	RVC
<input type="checkbox"/>	Aidan	Macqueen	RVC
<input type="checkbox"/>	Andrew	Leach	RVC
<input type="checkbox"/>	David	Timms	RVC

1. Meeting Commencement

a) Attendance and apologies

- Attendance as listed above.

b) Minutes of previous meeting

- Minutes of previous meeting were accepted.

c) Action list – outstanding action items

- The action list was received and noted.
- Action updates were spoken to.
- Water loss reporting - water loss reports that remain outstanding were requested.

2. Meeting dates

RESOLVED that the proposed meetings dates for 2018 be 27 February, 22 May, 28 August and 27 November.

3. Groundwater investigation (verbal)

- A general update on the progress of this project has been provided. Circulation of the Woodburn concept WTP report and groundwater testing will be circulated once completed.

4. **Water loss summary**

RESOLVED that the Committee receive and note the report.

5. **Sub Committee update**

i). **Review of possible transfer of Rous County Council water assets and retail customers to the constituent council**

RESOLVED that:

- 1). The Committee receive and note the report.
- 2). Feedback is requested to be received no later than 20 March 2018.
- 3). Consider the process for adoption of the plan with your councils.

ii). **Regional Demand Management Working Group**

RESOLVED to progress the new draft Regional Demand Management Plan for implementation at the beginning of the 2018/19 financial year, it is recommended that the following actions be undertaken:

- 1). Commit to the schedule of important dates and timeframes.
- 2). Consider the process for adoption of the plan with your councils.

iii). **Regional Drought Management Working Group**

RESOLVED that:

- 1). Constituent Councils to follow up letter issued to its General Manager by Rous County Council (RCC) on 12 December 2017 to enable RCC to proceed with production of signs.
- 2). Constituent councils to individually discuss with compliance team about which water restriction measures are enforceable and provide feedback to RCC by 27 March 2018.
- 3). RCC to contact other councils and determine what they have done in terms of enforcement and provide feedback to the working group by 27 March 2018.

6. **Risk mitigation update (verbal)**

i). **Rocky Creek Dam – New bulkhead construction**

- A general update on the progress of this project has been provided.

ii). **Emigrant Creek Dam Anchor Project**

- A general update on the progress of this project has been provided.

7. **Rous recruitment update (verbal)**

An announcement concerning the General Manager for Rous County Council was made.

8. **Emergency communication protocol**

No changes.

9. Meeting Closed

- 14:25pm.
- Agenda items were called for and are due two weeks prior to next meeting.
- RCC advised that the format of the RWSAL Committee business papers has now changed to encompass reports on matters where the constituent council's formal input is required. Verbal reports and presentations will be included for matters for information.
- Matters requiring clarification, or further information requests, can be referred to Michael McKenzie via email.

Rous County Council Regional Water Supply Agreement Liaison Committee

Action List - updated 23 August 2018

Demand Management				
Action	Responsible Agency	Responsible Person	Due Date	Status
An update on the progression of the development of the new draft Regional Demand Management Plan was provided. In progressing the plan for implementation at the beginning of the 2018/19 financial year, it was recommended that the constituent councils commit to the schedule of important dates and timeframes and consider the process for adoption of the plan	RCC	A. Acret and K. Bott	27 June 2018.	The Regional Demand Management Plan was adopted by Rous County Council (RCC) in its June 2018 council meeting. A letter was sent out from RCC on 26 June 2018 to the General Manager of each of the constituent councils requesting adoption/endorsement.

Future Water Strategy – Groundwater Study				
Action	Responsible Agency	Responsible Person	Due Date	Status
Rous County Council to circulate working papers as they become available.	RCC	M. McKenzie	TBC.	Draft Woodburn working paper to be circulate at the December Meeting.

Catchment Management				
Action	Responsible Agency	Responsible Person	Due Date	Status
Rous County Council to consult with each council to develop 2018-19 action list.	RW	A. Acret	TBC.	

Water Loss Reporting				
Action	Responsible Agency	Responsible Person	Due Date	Status
Water Loss Reporting 1. Provide quarterly reports ASAP. 2. Rous County Council to provide summary report after all quarterly reports are received.	BaSC	A. Swan	4 weeks after quarter.	Report received
	BySC	P. Rees		Report received
	LCC	R. Haig		Report received
	RVC	A. Leach		Report received
	RCC	M. McKenzie		Report received

Water Loss Reporting				
Action	Responsible Agency	Responsible Person	Due Date	Status
Rous County Council to provide summary report.	RCC	M. McKenzie	Each committee meeting.	Summary report was provided. Based on analysis from Hydrosphere Consulting in preparing the new draft Regional Demand Management Plan, the current level of non-revenue water in the region was 17% of total water supplied (2430ML/a).

Rocky Creek Dam Tunnel Upgrade				
Action	Responsible Agency	Responsible Person	Due Date	Status
Status report on the Rocky Creek Dam Tunnel Upgrade	RCC	M. McKenzie	Next meeting.	Verbal report at each meeting.

Drought Management Strategy				
Action	Responsible Agency	Responsible Person	Due Date	Status
Constituent Councils to follow up letter issued to its General Manager by Rous County Council (RCC) on 12 December 2017 to enable RCC to proceed with production of signs. Constituent councils to individually discuss with compliance team about which water restriction measures are enforceable and provide feedback to RCC by 27 March 2018. RCC to contact other councils and determine what they have done in terms of enforcement and provide feedback to the working group by 27 March 2018.	RCC	A. Acret and K. Bott	27 June 2018.	Several follow up emails have been sent by RCC to the constituent councils requesting a response to the letter issued on 12 December 2017 to enable RCC to proceed with production of signs. Information on which water restriction measures are enforceable have been received from the councils and collated by RCC. The collated information has been distributed amongst the Drought Management Working Group.

Developer servicing charges for granny flats				
Action	Responsible Agency	Responsible Person	Due Date	Status
Review of Developer servicing charges for granny flats	RCC	M. McKenzie	27 June 2018.	Overdue – request for data from the CC has been made with most data now received. Analysis has not yet commenced.

Possible transfer					
Action	Responsible Agency	Responsible Person	Due Date	Status	
Review of possible transfer of Rous County Council water assets and retail customers to the constituent Council	RCC	M. McKenzie	TBC.	Item for discussion on the agenda.	

Water loss summary

2311/16

Recommendation

That the Committee receive and note the report.

Purpose

This report is intended to provide the status of water loss actions identified in the Regional Demand Management Plan (RDMP) for the first quarter of July-September 2018.

Information

Water Balance Reporting

Based on analysis from Hydrosphere Consulting, the level of non-revenue water in the region at the time of preparing the new RDMP was 17% of total water supplied (2430ML/a).

Standardised reporting of water balance data will be developed (as per the methodology identified in the RDMP) by Rous County Council (RCC) in consultation with the constituent councils by 30 September 2018. When completed, RCC will request all councils to report on water balance data using the standardised reporting and procedure developed for all supply zones identified.

Water Loss Management Plans

In line with the new RDMP, the Water Loss Management Plans (WLMPs) for Ballina Shire Council, Byron Shire Council, Richmond Valley Council and RCC are included as an action to be prepared in this financial year. RCC has committed to co-fund 50% of each of the plans for Ballina Shire Council, Byron Shire Council and Richmond Valley Council up to a value of \$10,000 per plan.

RCC have also identified that a short summary document will be helpful in outlining the outcomes of the individual WLMPs. RCC will fully fund the preparation of this summary document which will include an overview of the Ballina Shire Council, Byron Shire Council, Richmond Valley Council, Lismore City Council and RCC WLMPs, current level of water losses, actions, targets (including individual contribution to the regional targets in the RDMP) and a summary of capital and operating budgets.

To receive value for money and consistency, a brief was written to engage a consultant to undertake the preparation of all WLMPs and the short summary document through a regional buy. After receiving feedback from the constituent councils on the draft brief, RCC is in the process of finalising. The following prospective consultants will be asked to quote on the briefs at the beginning of September 2018:

1. Detection Services, Stuart Stapley, www.detectionservices.com.au
2. Water Loss Management, Ian Maggs

The aim is for:

- Selection of a consultant by the end of September 2018.
- The preparation of WLMPs to commence from October 2018 (Quarter 2) as per the action in the RDMP.

Conclusion

The status of water loss actions identified in the RDMP for the first July-September 2018 quarter has been provided.

ACTIONSWater Balance Reporting

RCC to develop standardised reporting of water balance data by 30 September 2018.

All councils to report to RCC on water balance data in October 2018 using standardised reporting and procedure developed for all supply zones identified. This may evolve over time in line with the WLMPs.

Water Loss Management Plans

Please advise RCC by the end of August 2018:

- if there are additional consultants you would like to quote on the WLMP brief.
- if you would like to be involved in the selection process of a consultant (during September 2018.)

Drinking water stations

2311/16

Recommendation

That the constituent councils provide an indication as to whether drinking water stations have been considered or may be considered in the future for events to promote tap water and/or waste minimisation.

Purpose

To gauge interest in whether the constituent councils would consider investing in drinking water stations to be utilised at events to promote tap water and/or waste minimisation. If there is interest, the potential for collaboration and regional investment of the drinking water stations could be further explored through shared resourcing.

Information

At the request of its General Manager, Rous County Council (RCC) have undertaken some preliminary research into drinking water stations offered by Choose Tap.

Choose Tap is a broad, community-based initiative promoting tap water as the best hydration choice for the environment, people's health and their pocket. The hydration stations and portable refill stations (images below) provide free drinking water to local community festivals, concerts and sporting events. They are provided free of charge and keep attendees healthy and hydrated: <https://www.yvw.com.au/help-advice/community-programs/sponsorships-and-partnerships/book-hydration-station>

Two options for drinking water stations are:

1. Hydration stations sit on a robust trailer and cost approx. \$60,000. They are suitable for large scale events (2000+) and there is on-going expertise required in relation to plumbing and water quality to make sure that public health standards are adequately maintained (i.e. sanitation).
2. Portable refill stations are suitable for events with 500+ attendees with an approx. cost of \$3,500 each including freight and GST.



Portable refill stations offer flexibility being smaller units which are easier to move around and set up than a hydration station on a trailer. Most events in this region are not large scale events. Portable refill stations require less ongoing maintenance and associated costs than the hydration stations. Choose Tap can recommend a supplier and there are also other suppliers on the market which could be investigated further to ensure the investment is competitive.

RCC understands that Lismore City Council (LCC) is currently investigating portable drinking water stations to be utilised at events. LCC advised that a resolution was passed on 17 July 2018 for LCC to continue its leadership in waste and recycling. As such, LCC have looked at 'Meet Pat' portable water stations, which require a nearby tap to operate (<https://www.meetpat.com.au/portable/>). The stations would be utilised for town events and have an approximate cost of \$4,000.

Conclusion

Drinking water stations provide free drinking water to local community festivals, concerts and sporting events. They can be utilised to promote tap water and/or waste minimisation. Portable refill stations offer flexibility being smaller units which are easy to move around and set up. They would be suitable for most events in this region.

ACTIONS

RCC would like an indication as to whether the constituent councils would consider investing in drinking water stations. If there is interest, the potential for collaboration and regional investment of the drinking water stations could be further explored through shared resourcing.

Review of developer servicing charges - secondary dwellings

2311/16

Recommendation

That the report be received by the Committee noting the following key points and findings:

1. The average daily water use for properties with approved secondary dwellings is below the Water Directorate Section 64 Determinations of Equivalent Tenement Guidelines (WDET) for 1 ET (630L/day).
2. The average increase in water consumption for these properties over the review period is between 100-250L/day.
3. Secondary dwellings will increase demand on water supply networks
4. Design of new infrastructure for developments where there is a high likelihood of secondary dwellings being constructed should consider the extra water demand created by these dwelling.

Further, it is **recommended** that a working group is formed with members from the Constituent Councils and Rous County Council to develop and adopt a common methodology for waiving developer charges for secondary dwellings.

Purpose

To inform the Committee on the review of the effect of secondary dwellings on the consumption of water.

Information

In 2014 and 2015, the constituent councils and Rous Water implemented policies to waive developer contributions for secondary dwellings with varying methodologies. Rous Water tabled a report to the June 2016 Regional Water Supply Agreement Liaison Committee meeting advising of its Council resolutions in relation to developer contributions for secondary dwellings and putting forward the following recommendations which were adopted at the meeting.

1. A review of the effect of secondary dwellings on the consumption of water be undertaken to determine if the exemption of Section 64 Charges is appropriate.
2. The Committee determine a methodology for undertaking the review.
3. The constituent Councils provide data for the review to be undertaken.
4. Rous Water undertake the review.

Review methodology

Rous County Council (RCC) have undertaken a review of the effect of secondary dwellings on the consumption of water to determine if the exemption of Section 64 Charges (S64) is appropriate.

The review involved analysis of water consumption data from properties with secondary dwellings to determine the additional demand created by a secondary dwelling and if the water demand of the combined primary and secondary dwelling is above one equivalent tenement, as defined by NSW Water Directorate Equivalent Tenement (WDET) Guidelines as 630L/day/ET.

The reasoning behind this is that a single dwelling development will typically pay S64 charges of 1 ET giving them a theoretical entitlement to 630L/day. If the combined water usage of the primary and secondary dwelling is below this figure there is strong evidence to suggest waiving of S64 developer contributions is appropriate. However, it should be noted that this approach does not examine the water consumption of the ultimate development (e.g. all bedrooms occupied) but rather the water consumption of the current occupants.

Review of water consumption

To undertake the review, RCC requested the following data from the constituent councils:

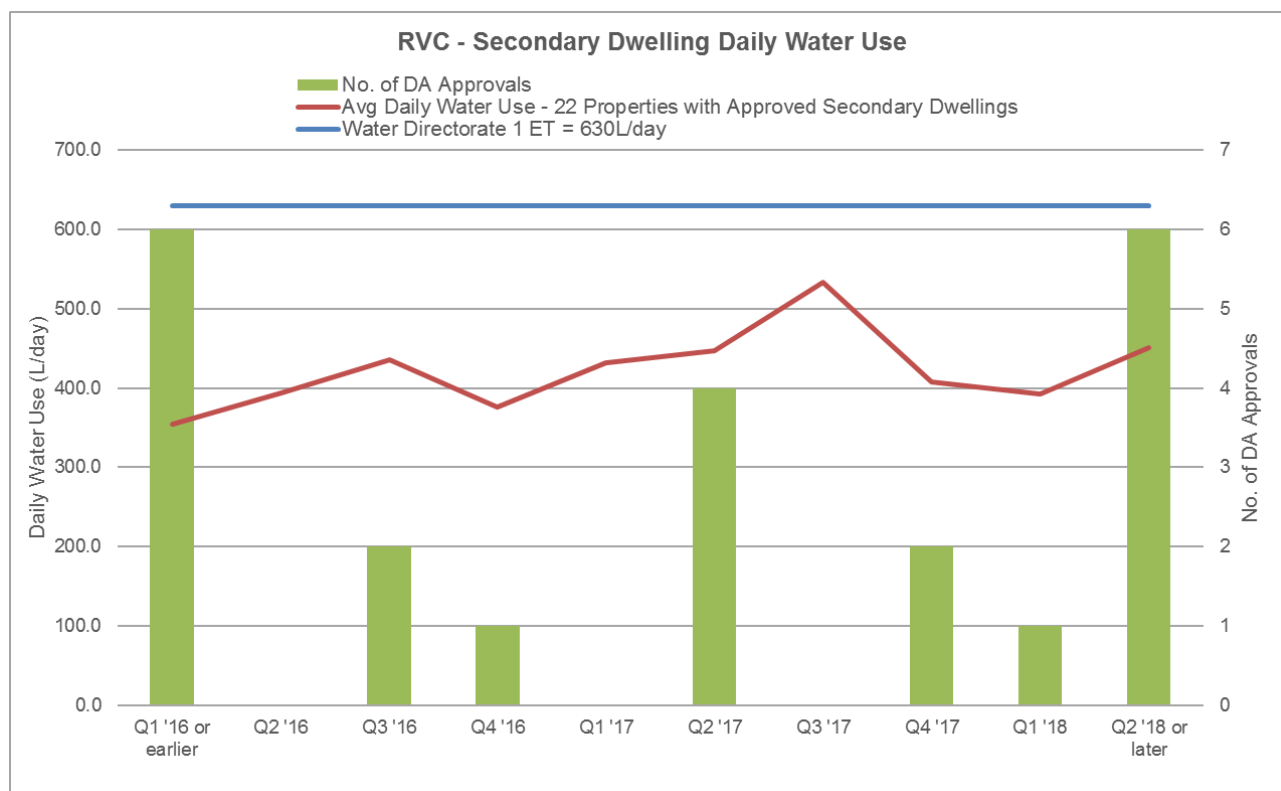
- Pre and post water consumption data for secondary dwelling developments that have been constructed in the last 2 or 3 years.
- Average daily water consumption for a random selection of properties **with** secondary dwellings and properties **without** secondary dwellings.

RCC had only received a small number of secondary dwelling developments and on review these were found to be the legalisation of existing secondary dwellings or formed part of a new development application inclusive of the primary dwelling. This data was not used in this review.

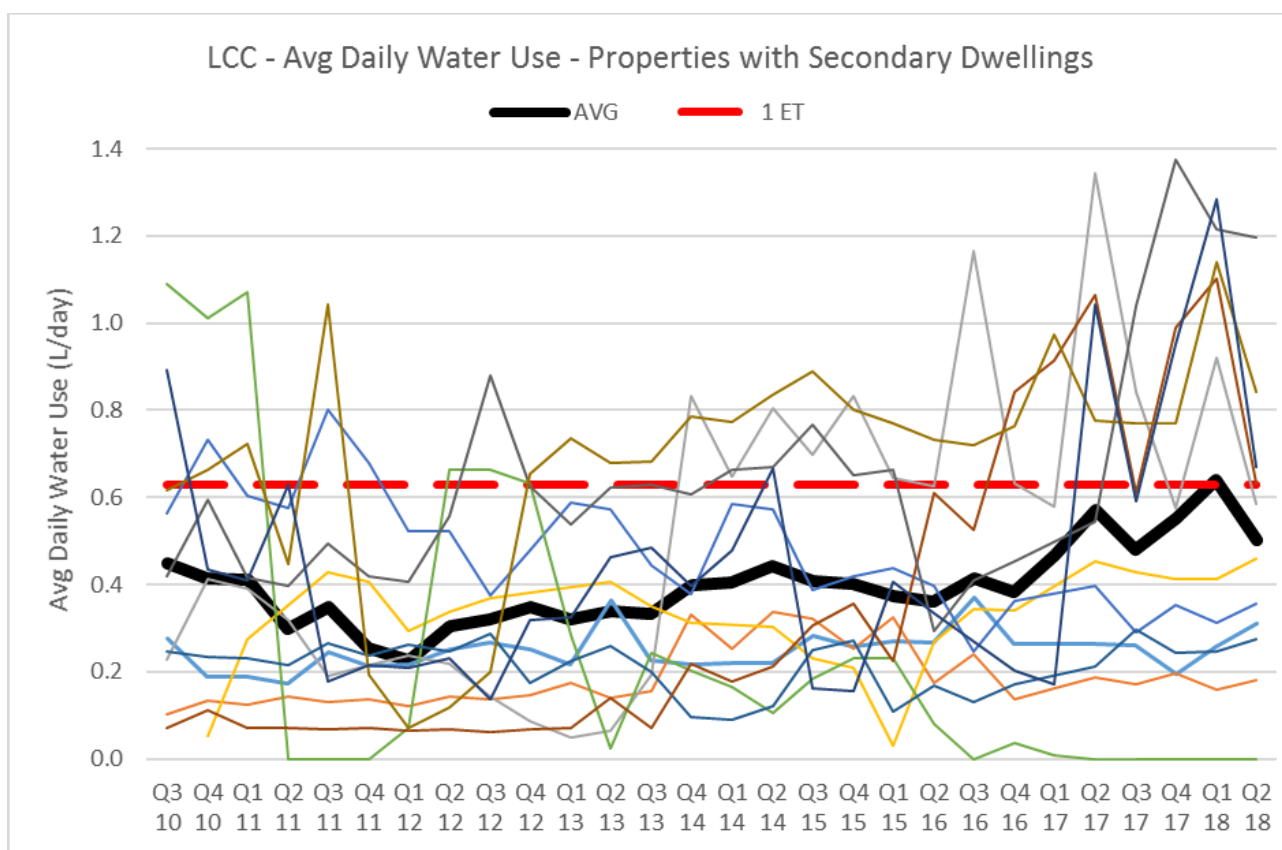
Richmond Valley Council (RVC) supplied data for 22 properties which had an approved secondary dwelling in the last few years. The chart below shows the average daily water use for the combined 22 properties over the period is below the WDET Guidelines for 1 ET of 630L/day. The chart also shows the number of secondary dwelling developments approved in each quarter. This may not necessarily reflect the number of secondary dwellings constructed.

In general, most individual properties with a secondary dwelling did not have any noticeable change in water consumption excluding a very high water consumer whose water consumption increased from 1050L/day pre-development to 1300L/day post-development.

There is a very slight uptrend in average daily water consumption for the 22 properties over the period most likely attributed to the very high water consumer.



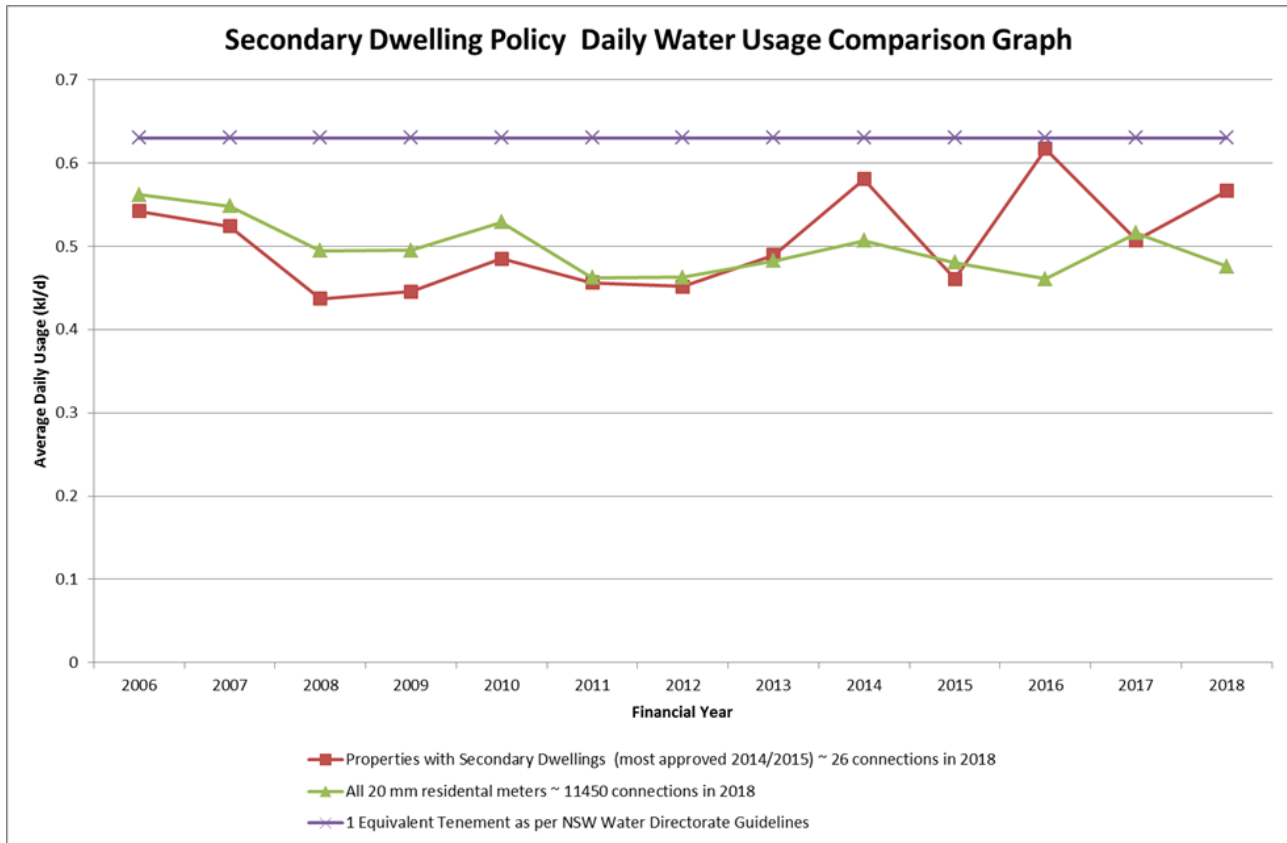
Lismore City Council (LCC) supplied data for 11 properties which had an approved secondary dwelling in the last few years. The chart below shows the average daily water use for the 11 properties over a period of seven years. The date of secondary dwelling DA approval or construction for each property is unknown. It is assumed that the secondary dwelling is constructed within the 7-year period shown. The chart also shows the average daily water use for the combined 11 properties over the period is below the WDET Guidelines for 1 ET of 630L/day.



Approximately half of the properties showed a distinct increase in average daily water consumption over the period with a number now exceeding the WDET Guidelines for 1 ET of 630L/day.

There is a noticeable uptrend in average daily water consumption for the 11 properties over the period which exceeds the WDET Guidelines for 1 ET in Q1 2017/18.

Ballina Shire Council (BaSC) supplied a chart showing daily water consumption trends of 26 secondary dwellings approved in 2015/16 compared to all connections on the Ballina water reticulation.



No data was supplied from Byron Shire Council (BySC).

In summary, the average daily water consumption trends for 59 properties with approved secondary dwellings was reviewed with the following key findings:

- The average daily water use for these properties was below the WDET Guidelines for 1 ET which is 630L/day.
- The average increase in water consumption for these properties over the review period is between 100-250L/day. This is somewhat consistent with WDET Guidelines which suggest S64 charges of 0.4ET (252L/day) for a 1-bedroom secondary dwelling or 0.6ET (378L/day) for a 2-bedroom secondary dwelling.

It should be reiterated that analysing actual water consumption is not reflective of the water demand that would be derived from the ultimate development (i.e. all bedrooms at full occupancy).

It should also be noted that the data provided does not indicate the size of the secondary dwellings nor when the secondary dwelling was occupied.

Practical considerations

Different methodologies

The waiving of developer contributions for secondary dwellings was implemented by the constituent councils to support increasing the range and affordability of housing options, increasing the density of housing around established infrastructure, as well as providing opportunities for additional income, alternative retirement options and inter-generational care. RCC resolved to adopt the same methodology used by LCC and BaSC as detailed below.

All Secondary Dwellings as defined in the Lismore Local Environment Plan will be exempt from Section 64 and Section 94 charges where the secondary dwelling does not increase the number of overall bedrooms in the site to greater than five, the number of water closets to greater than three and the laundries to greater than two.

RCCs adoption of a policy for waiving developer charges for secondary dwellings was to support the constituent councils to achieve their objectives. This is consistent with previous practice in development assessment where RCC bulk water developer charges for properties supplied within a local council water reticulation area are determined by the local council and collected on our behalf.

It is understood that BySCs methodology for determining waiver of developer contributions for secondary dwellings is based only on bedrooms and a waiver is applied where the total number of bedrooms in the site is five or less. It is also noted in the BySC policy that any room that could be utilised as a bedroom is considered as a bedroom for the purposes of this assessment. RCC has also adopted this assessment methodology.

RVC sought to delete their developer charges for secondary dwellings.

There is inconsistency across the region in waiving developer charges for secondary dwellings. Due to the differences in methodologies across the region there is potential that some developments may receive a waiver for developer charges from their local Council but not from RCC.

Inclusion of toilets and laundries in assessment methodology

RCC staff have been referred developments for assessment of developer charges where the number of bedrooms is five or less however the number of toilets is greater than three due to the occupant of the house needing ready access to toilet facilities for medical reasons. Under RCC current policy, this development would not qualify for a waiver of developer contributions due to the number of toilets. There is potential here that this could give rise to a disability discrimination claim. RCCs governance team are currently reviewing.

Demand for water is driven by the occupants of the house and the maximum number of occupants in the house is limited by the number of bedrooms. The accepted practice is to consider the typical number of occupants in the house as the total number of bedrooms plus one. There is no real argument to suggest that increasing the number of toilets and laundries in the development will increase the water demand. Consideration should be given to removing the criteria regarding number of toilets and laundries.

With the removal of the toilet and laundry criteria from the waiver policy, there is a potential that a secondary dwelling development with multiple toilets and laundries (i.e. 5 beds, 5 toilets and 5 laundries) on the site could still qualify for a waiver of developer charges. A development of this nature given in the example is likely to generate more water demand as there is likely to be multiple separate occupants each doing their own cooking, laundry, etc. However, because this type of development is likely to be used as apartments or short-term accommodation it should be assessed as a multi-storey development, guest house or hostel and would not be assessed as a secondary dwelling.

Subsequent developments of the primary or secondary dwelling

The current methodologies used by the local councils for assessing developer charges for secondary dwellings would typically permit waiving of the charges where total bedrooms on the site is five or less (and in the case of RCC, Ballina and Lismore, also three or less toilets and two or less laundries).

Development applications for extensions including additional bedrooms, toilets or laundries to a primary dwelling would typically not generate any additional developer charges as the water and sewer demand is assumed to be covered by the one ET charge already levied on the development.

However, in the case of a development application for extension including additional bedrooms, toilets or laundries for a property with a primary and secondary dwelling, it is recommended the development is reassessed against the policy for waiving developer charges.

Water demand of secondary dwelling developments

Developer charges are levied on developers to recover part of the capital cost incurred in providing infrastructure to new development. The charges are based on an assessment of the water demand generated by the development and calculated per each council's developer servicing plan.

When considering water demand of a development, the ultimate demand should be considered. The ultimate demand should be considered as all available bedrooms occupied. For example, an eight-bedroom dwelling at full occupancy will house more occupants and generate more water demand than a two-bedroom dwelling, however, over a local government area the average dwelling size would be closer to three bedrooms and average water demand would be closer to that generated by a 3-bedroom dwelling. It is noted that one ET is typically applied to a single dwelling regardless of the number of bedrooms.

It is generally accepted that a freestanding single dwelling is one equivalent tenement as this will typically contain a family unit who would do combined cooking and laundry.

A secondary dwelling will typically accommodate a separate family unit who will do their own cooking and laundry placing additional demand on the water supply. It is noted that allowance for outdoor watering is included in the existing single residential lot which has already accounted for outdoor water usage in its developer charge of one ET.

Secondary dwellings will increase water demand on the network and should pay developer charges as applicable, albeit, an assessment of around 0.4 - 0.6ET is considered appropriate due to the development being on the same property as an existing dwelling.

Design of infrastructure for new development

This report has identified there is additional water demand generated by secondary dwellings potentially in the order of 100-250L/day.

It is noted that design of infrastructure to service new and future developments should meet peak hour demand or peak day demand. These peak demands are generally calculated on the number of metered connections in the area and using peak water demand and equivalent person/connection figures from the NR Development and Design Guidelines.

Secondary dwellings are constructed on the same parcel of land as the primary dwelling and are typically not separately metered so in effect they would not be captured in estimates of peak demand.

Not every existing parcel of land can accommodate a secondary dwelling due to parcel size and other restrictions so the impact of these developments not being captured in peak day estimates may be minor, however, if there is a significant amount of properties with secondary dwellings in a local area, the estimates of peak day demand may be underestimated.

Estimated financial impact

This report analysed data from 59 secondary dwellings. The BaSC February 2018 report identified 120 approved secondary dwellings in Ballina Shire (96 more than the 26 Ballina meters analysed in this report). Anecdotally, secondary dwellings approved in the BySC area is close to 500.

It is estimated there could be anywhere from 150 to 650 secondary dwellings approved in the combined LGAs of the Constituent Councils.

Assuming these secondary dwellings all received a waiver of developer charges, and assuming an average waiver for S64 and S96 charges is somewhere around \$20,000 per development (figure extrapolated from BaSC report), the financial impact could be anywhere from greater than \$10M.

It should be noted that any development that has its developer contributions waived reduces the available funds to provide infrastructure to new development. The shortfall in funds will need to be met by all other potable water users and future developers in the region.

Subsequent events

BySC considered a report at its February 2018 Ordinary Meeting. The report advised a review of the impact of the waiver on rents has found that the waiver has had no impact on the rate of increase of median rents for single bedroom dwellings. The report recommended to remove the waiver and charge contributions on secondary dwellings. BySC resolved to “*notify the public and seek submissions on the proposal to terminate the waiver of section 94 and section 64 contributions for secondary dwellings*”.

BaSC at its February 2018 Ordinary Meeting considered a report relating to the application of developer contributions for secondary dwellings following a four-year initial implementation. Council resolved to continue to waive developer contributions for secondary dwellings with no set expiry date.

BaSC also resolved that secondary dwellings that are attached to, or located within, the principal dwelling on the site and has been designed as a visually integrated addition (through use of a common wall and similar roof design) will continue to receive 100% waiver of developer contributions. Secondary dwellings that are detached from the principal dwelling on the site or is otherwise not visually integrated with the principal dwelling will now receive 50% waiver from 31 March 2018.

Conclusion

This report details the review of the effect of secondary dwellings on the consumption of water.

The water consumption of 59 properties with approved secondary dwellings from the LCC, BaSC and RVC areas were analysed in this review. It is concluded that a secondary dwelling will increase water demand by approximately 100-250L/day.

The average daily water use for the analysed properties with approved secondary dwellings was below the WDET Guidelines for 1 ET which is 630L/day however it is likely that not all approved secondary dwellings were constructed during the review period. Also, this analysis was performed on actual consumption and the developments may not be at full occupancy.

The development of a secondary dwelling on a property will increase the demand for water and developer charges are applicable. The decision to waive developer charges for this type of development should not be justified on the consumption of water but may be driven by other objectives including promotion of alternative and affordable housing options.

RCC is due to assess and report to its Council the impact of this waiver policy. RCC will be considering the removal of the toilet and laundry criteria.

Review of possible transfer of Rous County Council water assets and retail customers to the constituent council

2311/16

Recommendation

That the Committee receive and note the report.

Purpose

This report is intended to table the final report on review of the possible transfer of Rous County Council (RCC) water assets and retail customers to the constituent Councils. This report also provides an update on the next steps to be taken by RCC.

Information

The original scope of work identified key tasks for the study, which were:

1. Analysis of retail customer characteristics and supply points
2. Analysis of regulatory requirements and related obligations
3. Identification of project objectives and potential options
4. Confirmation of options for evaluation
5. Detailed options assessment and recommendations

At its November 2017 Council meeting, RCC senior staff held a workshop with councillors to discuss the progression of this project. Upon the conclusion of the workshop the following recommended processes had the consensus of the councillors' present:

- Detailed options assessment will include the recommended options as detailed in the report with a comparison against a base case being the status quo.
- Consultation with the delegates from the constituent councils to discuss options to be further investigated and determine the assessment methodology.
- Develop a preferred methodology for financial compensation for any transfer of assets/customers.
- Provide a report to Council to establish Council's position in relation to any possible transfer of RCC water assets and retail customers.
- Undertake RCC customer consultation.

RCC has sort feedback on the review the Investigation into Options for Transfer of Rous Retail Customers and Assets to Constituent Councils – Preliminary Information and Coarse Screening report. Those comments were incorporated into the preparation of the final stage of the brief.

The report provides a desktop investigation of the requirements for transfer of assets and customers from RCC to the relevant constituent council, including preliminary sizing and budget costing of major infrastructure. This report was not intended to detail all the required but have a starting point for further consultant with policy makers. Other considerations such as operational and customer management, staffing, funding, financial implications and customer involvement have not been investigated as part of this report.

Conclusion

RCC has received the final report which contains preliminary assessment options and recommendations. The report now completes the original scope of works for this project.

ACTIONS

RCC senior staff will report the matter to Council to establish Rous' position. At this stage no timeframe has been set for this action.

Attachment: 'Final Investigation into Options for Transfer of Rous Retail Customers and Assets to Constituent Councils'.



Investigation into Options for Transfer of Rous Retail Customers and Assets to Constituent Councils

Preliminary Transfer Options for Shortlisted Areas

July 2018

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PROJECT 17-027 – RCC RETAIL INFRASTRUCTURE/CUSTOMER TRANSFER					
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1. INTRODUCTION

Rous County Council (RCC) has engaged Hydrosphere Consulting to investigate potential options for transfer of RCC retail customers and assets to the respective council of each Local Government Area (LGA).

Currently the retail customers contained within the areas investigated as part of this study are supplied through connections to the RCC retail network. These retail connections allow people within these areas, both rural and residential, access to treated water rather than relying on tank water or local creeks. These existing RCC retail connections are directly linked to RCC trunk mains or via a reticulation main connected to the trunk system. A small number of connections would be categorised as a conventional reticulation system supplied from reticulation mains and reservoirs.

The first part of this investigation involved analysis of data on retail customers, consultation with RCC and the constituent councils (Ballina Shire Council – BaSC, Byron Shire Council – BySC, Lismore City Council – LCC and Richmond Valley Council – RVC) and identification and development of potential options for further investigation. The findings were presented in a report, “*Investigation into Options for Transfer of RCC Retail Customers and Assets to Constituent Councils*” (Hydrosphere Consulting, 2017).

This report provides a preliminary investigation of the requirements for transfer of assets and customers from RCC to the relevant constituent council, including preliminary sizing and budget costing of major infrastructure. Other considerations such as asset management, operational and customer management, staffing, funding, asset ownership, financial implications, compensation and customer involvement have not been investigated further as part of this report.

2. METHODOLOGY

The initial investigation (Hydrosphere Consulting, 2017) recommended further investigation of the following transfer options:

- Ewingsdale (BySC);
- Bangalow (including Binna Burra) (BySC);
- Eureka (BySC);
- Bexhill (LCC);
- Richmond Hill (LCC);
- Monaltrie (South Gundarimba) (LCC);
- Wyrallah (LCC);
- North Woodburn (LCC); and
- North Ballina (BaSC).

Due to engineering constraints (lack of suitable elevation for a supply reservoir), a conventional reticulation system is not considered feasible in Wyrallah. In addition there is no development/expansion planned for Wyrallah. Servicing Binna Burra from either LCC or BySC networks is not considered feasible due to the large lengths of main required and the dispersion of customers. Therefore these areas have not been considered further in this report. During the current investigation, an additional option, Skinners Shoot, was included due to the close proximity of this area to the current BySC reticulation network.

In some of the areas, two stages of infrastructure development have been recommended, as listed below:

1. Ewingsdale (BySC) - two stages;
2. Bangalow (BySC) - two stages;
3. Eureka (BySC);
4. Skinners Shoot (BySC);
5. Richmond Hill (LCC);
6. Monaltrie (LCC);

7. North Woodburn (LCC);
8. Bexhill (LCC) - two stages; and
9. North Ballina (BaSC) - two stages.

For each of these nine transfer options a review of the current supply configuration, peak demand requirements and infrastructure required to transfer these customers has been developed with input from RCC. The following information is provided in this report:

- The number of customers within each transfer option and associated stages;
- The peak demand requirements for each option;
- The assets and customers to be transferred;
- The infrastructure required to undertake the transfer option (preliminary concept only); and
- The costing of major infrastructure required (including trunk and reticulation mains, reservoirs, bulk meters and connections to mains or customer meters).

The transfer concepts presented in this report (refer Appendix A) are preliminary only. Detailed hydraulic analysis and asset design have not been undertaken and financial, geotechnical, environmental and social considerations have not been included in the analysis. In some cases, the transfer approach relies on adequate capacity within existing constituent council networks which has not been confirmed.

Estimated costs for the mains and reticulation were sourced from the NSW Office of Water *Reference Rates Manual* (NOW, 2014), indexed to current (2017/18) dollars and including survey, investigation, design and project management allowances and potential additional costs for rock excavation, construction difficulty and dewatering. Costs for other assets were based on current market estimates. A 20% contingency amount was also applied to all calculated costs for each transfer option to allow for uncertainty in the estimates (Appendix B).

3. CURRENT SUPPLY ARRANGEMENTS AND TRANSFER APPROACH

The following sections describe the current supply configuration, the proposed approach for the transfer of customers and assets as well as the budget cost for the works.

3.1 Ewingsdale

3.1.1 Current Configuration

The Ewingsdale urban residential area (Figure 1 - Area A) is a large group of customers with the potential for additional growth. Ewingsdale includes 229 RCC retail customers (Area A = 219 & Area B = 10). The customers within Area A are currently supplied by the RCC trunk main (Brunswick 300 mm) which is fed by the St Helena reservoir and a retail reticulation network. The customers within Area B are supplied via a direct connection to the RCC trunk main (Brunswick 300 mm).

3.1.2 Proposed Approach

The proposed transfer of Ewingsdale retail assets and customers involves two stages, connecting the customers and associated assets to a new reservoir supply from the south and connecting to the BySC network to provide additional capacity for future growth (Figure 1 and Appendix A).

Stage 1 – Supply from new reservoir

Stage 1 involves the construction of a new reservoir adjacent to St Helena reservoir to supply the Ewingsdale area. The new reservoir would be filled via the RCC trunk main (St Helena 525 mm) with a bulk meter installed at the intake. A new 200mm trunk main (adjacent to the existing RCC Brunswick 300 mm and 375 mm trunk mains) would supply the customers within Area A. There is an option of supplying additional outlying customers to the north (Area B) via the extension of the trunk main along Quarry Lane and the

connection of meters north of Ewingsdale. This is expected to be a significant cost per additional customer connected and has not been included in the cost estimates for this stage.

Stage 1 - Connection to existing BySC network

This stage involves the supply of customers in Area A from a new trunk main (150 mm) connected to the West Byron reticulation network which is supplied by the Coopers Shoot reservoirs. The new main would be connected to the BySC 150 mm main on Ewingsdale Road south of the Cavanbah Centre. The main would run east along Ewingsdale Road onto Mcgettigans Lane and connect to the two RCC reticulation networks located in Area A.

Table 1: Estimated cost - Ewingsdale

Stage	Cost (\$)
Stage 1	2,604,000
Stage 2	1,164,000
<i>Total</i>	<i>3,768,000</i>

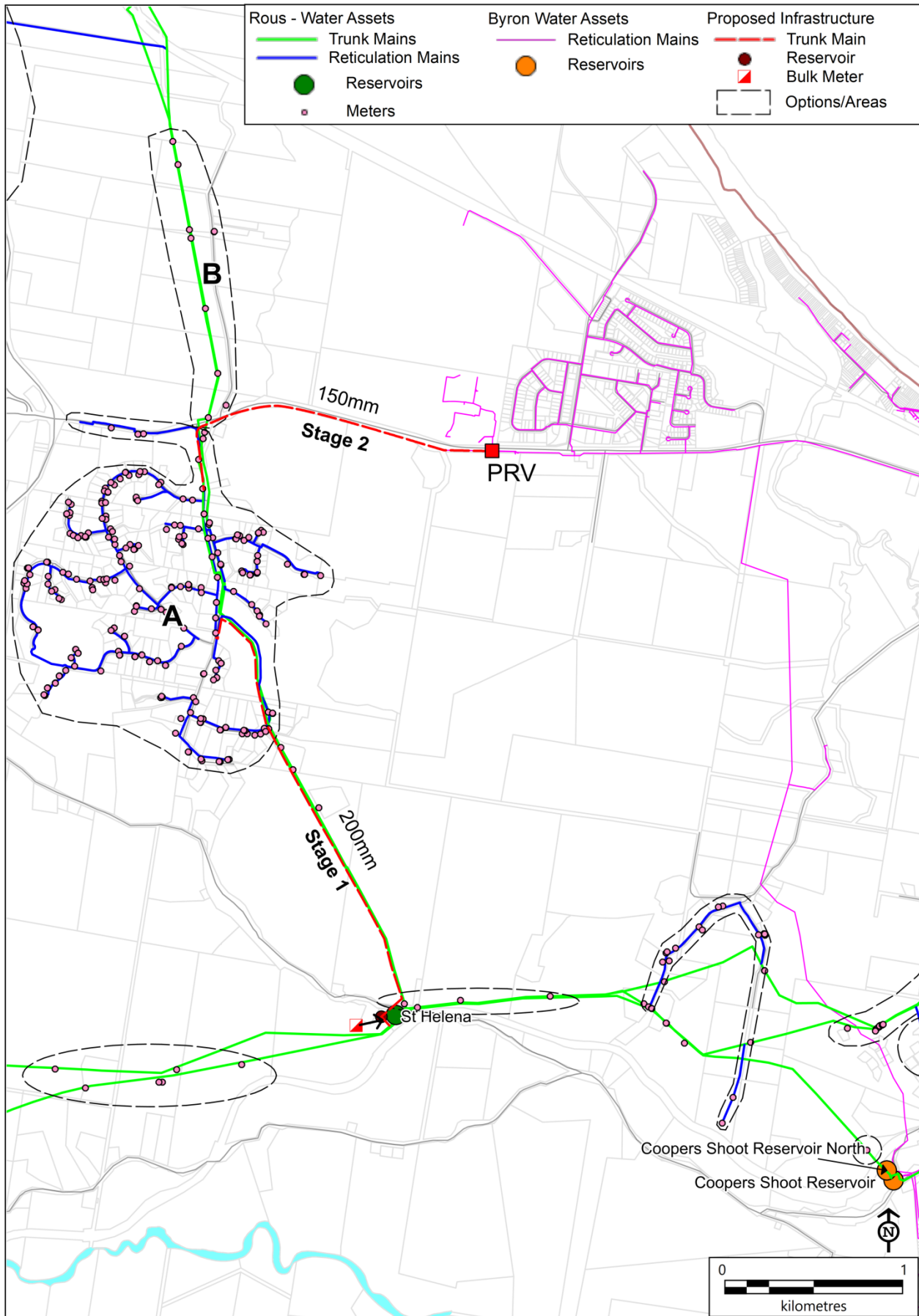


Figure 1: Current configuration and proposed transfer approach - Ewingsdale (Stages 1 and 2)

3.2 Bangalow

3.2.1 Current Configuration

The Bangalow village and industrial estate (Figure 2 - Areas A & B) contain retail customers in close proximity to an existing Byron Shire reservoir (Granuaille reservoir). These two areas contain 37 RCC retail customers (Area A = 5 & Area B = 32). The customers within Area A are currently supplied by the RCC Byron 300 mm trunk main and a retail reticulation network. The customers within Area B are supplied either via a direct connection to the RCC trunk main (Byron 300 mm) or via a RCC retail reticulation network (Dudgeons Lane, Bangalow industrial estate).

3.2.2 Proposed Approach

The proposed transfer of retail assets and customers from RCC to BySC for Bangalow area includes two stages (Figure 2 and Appendix A).

Stage 1 - Connection to existing BySC reservoir

Stage 1 involves the supply of the RCC retail customers in Area A from the BySC Granuaille reservoir (high pressure zone) involving a connection to the reservoir outlet.

Stage 2 – Industrial estate

RCC is planning a duplication of the Byron 300mm trunk main in 2025/26.

Stage 2 involves the transfer of the existing Byron 300mm trunk main, connected meters and industrial estate reticulation network (Area B) to supply from the Granuaille reservoir and disconnection from the RCC bulk supply network to the west. Stage 2 can be considered at the time of duplication of this main.

Table 2: Estimated cost - Bangalow

Stage	Cost (\$)
Stage 1	72,000
Stage 2	120,000
<i>Total</i>	<i>192,000</i>

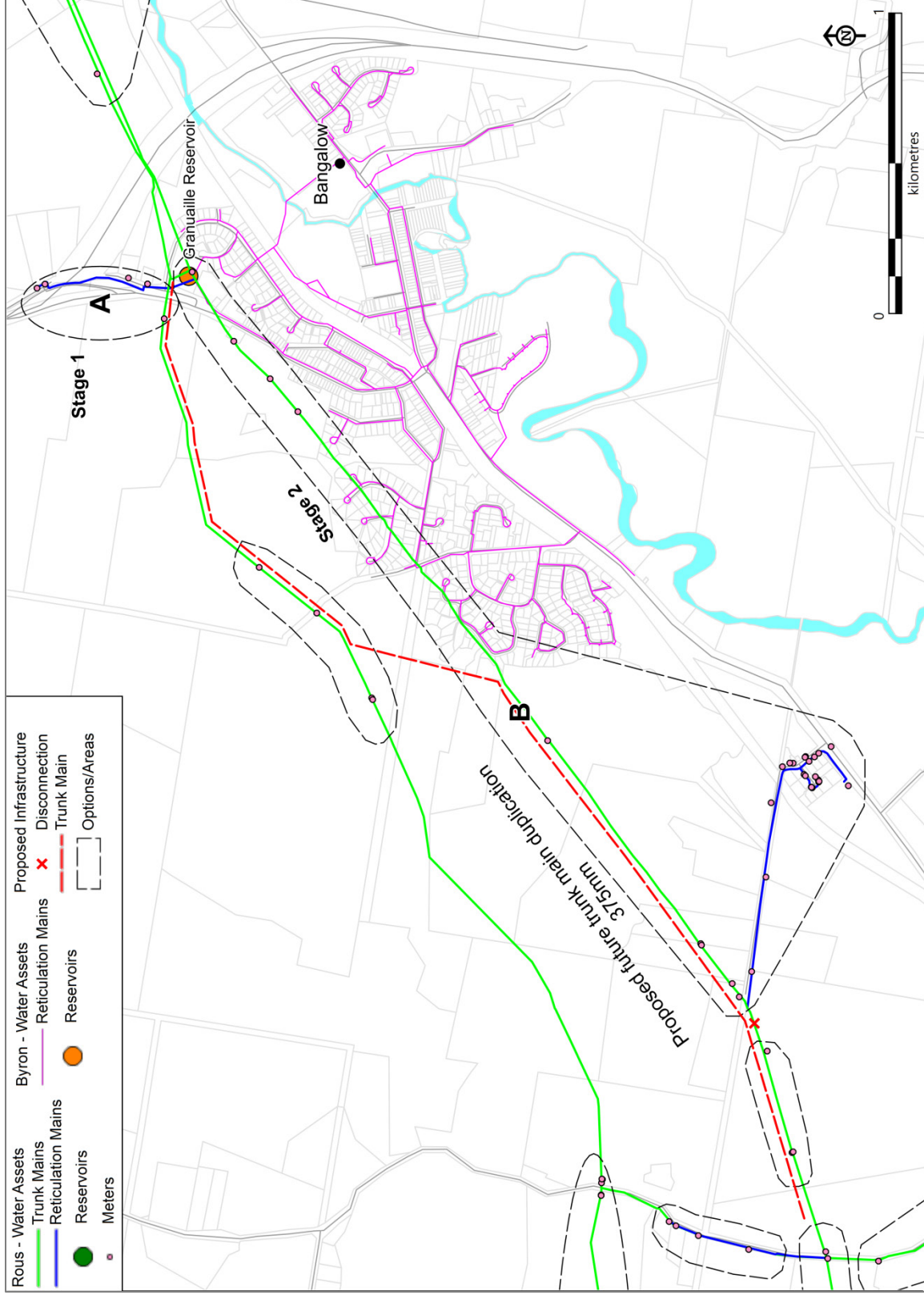


Figure 2: Current configuration and proposed transfer approach - Bangalow (Stages 1 and 2)

3.3 Eureka

3.3.1 Current Configuration

Eureka village is supplied by two retail reticulation networks (Figure 3 – Area A - Eureka Road & Area B - Bencluna Lane) and the Eureka reservoir which is filled by the RCC St Helena 300 mm trunk main. These two networks contain 26 customers (Area A = 19 & Area B = 7). For water quality reasons, the Eureka Reservoir has been isolated from the supply system however this can be reinstated.

The existing main supplying Area B will be replaced by a new 63 mm poly line in 2018/19.

3.3.2 Proposed Approach

The proposed transfer of retail assets and customers from RCC to BySC for Eureka (Figure 3 and Appendix A) involves the construction of a new 150mm supply main from the RCC St Helena 525 mm trunk main to the Eureka reservoir with the installation of a bulk meter at the inlet. The new main and Eureka reservoir will supply the Eureka Road (Area A) reticulation network which includes a high pressure zone to the north-east.

Bencluna Lane (Area B) reticulation network would be supplied from the Eureka reservoir and the new reticulation main.

Table 3: Estimated cost - Eureka

Stage	Cost (\$)
Total	644,000

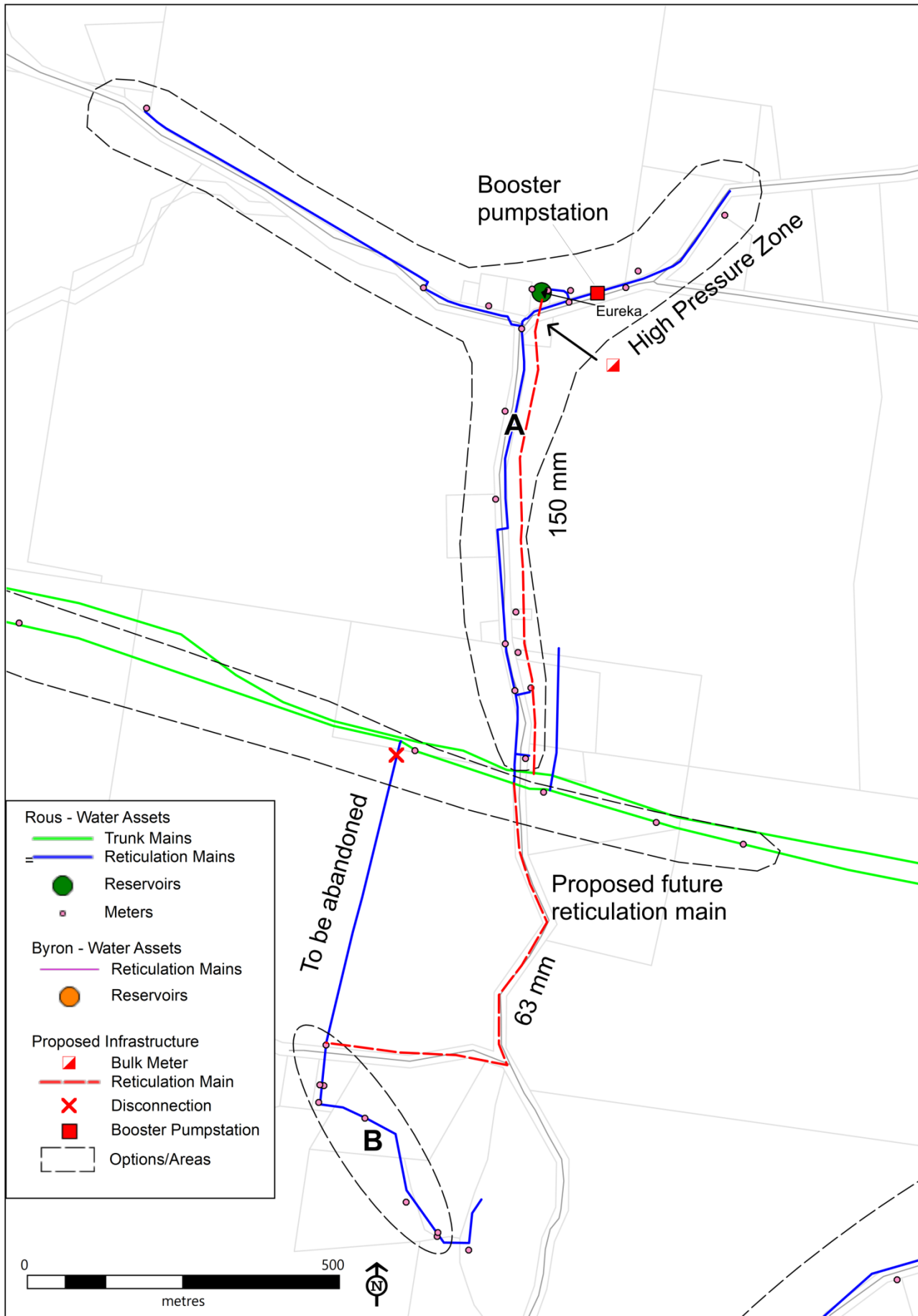


Figure 3: Current configuration and proposed transfer approach - Eureka (Stages 1 and 2)

3.4 Skinners Shoot

3.4.1 Current Configuration

Skinners Shoot (Figure 4 – Area A) includes a small group of RCC retail customers in close proximity to the BySC reticulation network. This area contains 24 customers currently supplied via two RCC reticulation networks fed by the RCC Byron 150 mm and Coopers Shoot 375 mm trunk mains or through direct connections to these trunk mains.

3.4.2 Proposed Approach

The proposed transfer of retail assets and customers from RCC to BySC for the Skinners Shoot area involves the supply of customers in Area A from the BySC 400 mm trunk main (Figure 4 and Appendix A) with extended reticulation mains along Skinners Shoot Road (150 mm) and along Yagers Lane (100 mm). Supply pressure and flow will need to be investigated further.

Table 4: Estimated cost - Skinners Shoot

Stage	Cost (\$)
Total	704,000

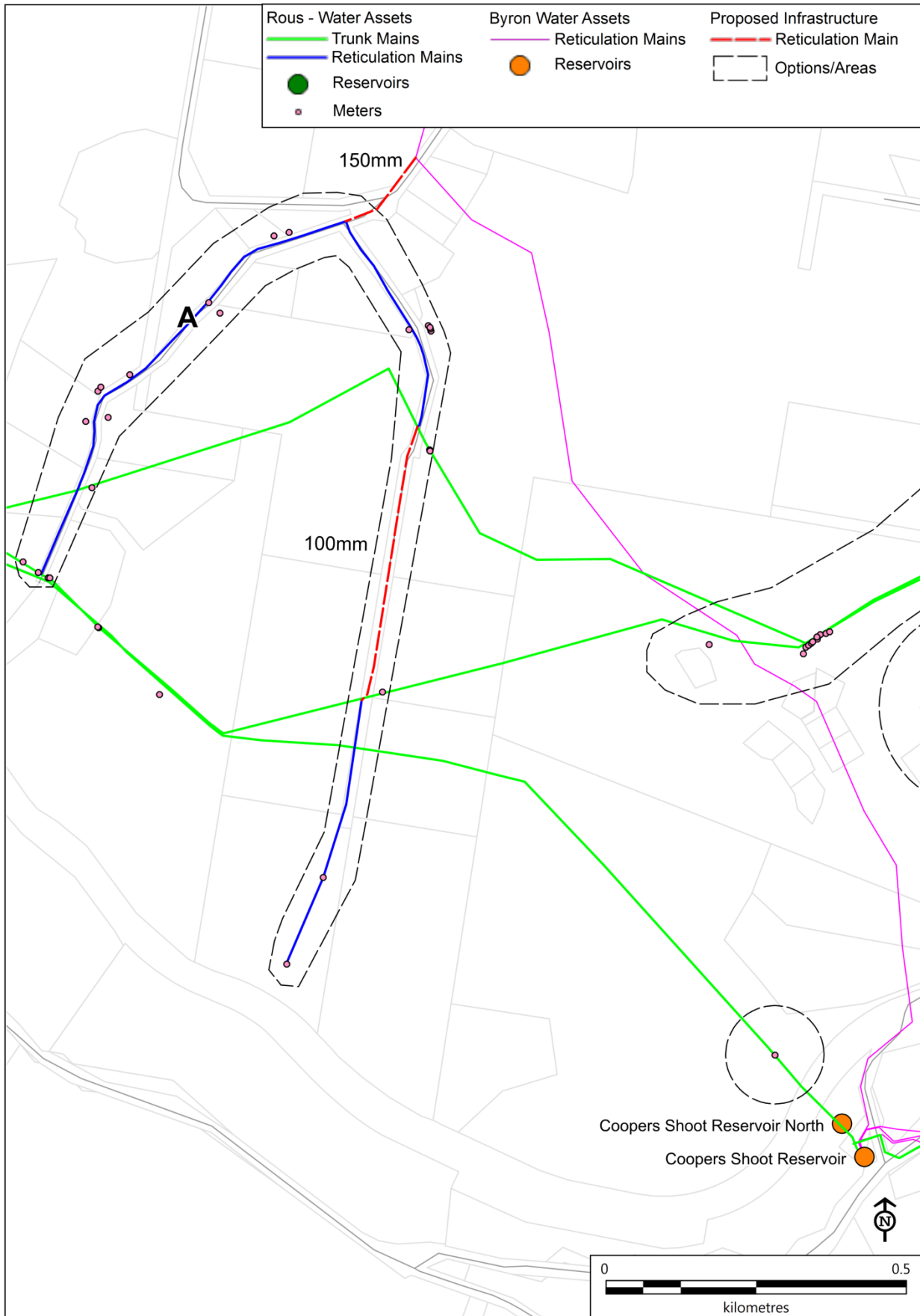


Figure 4: Current configuration and proposed transfer approach - Skanners Shoot

3.5 Richmond Hill

3.5.1 Current Configuration

Richmond Hill (Figure 5 – Area A) includes a large group of customers with potential for additional growth in the future. This area contains 319 customers currently supplied via the RCC retail mains supplied by the Pineapple Road reservoir.

3.5.2 Proposed Approach

The proposed transfer of retail assets and customers from RCC to LCC for the Richmond Hill area involves minimal additional infrastructure (Figure 5 and Appendix A). The village supply would be disconnected from the RCC bulk supply network at Boatharbour (Lismore 600 mm) with bulk supply from the Pineapple Road reservoir. A new bulk supply meter would be required at the inlet of the reservoir.

Table 5: Estimated cost – Richmond Hill

Stage	Cost (\$)
Total	144,000

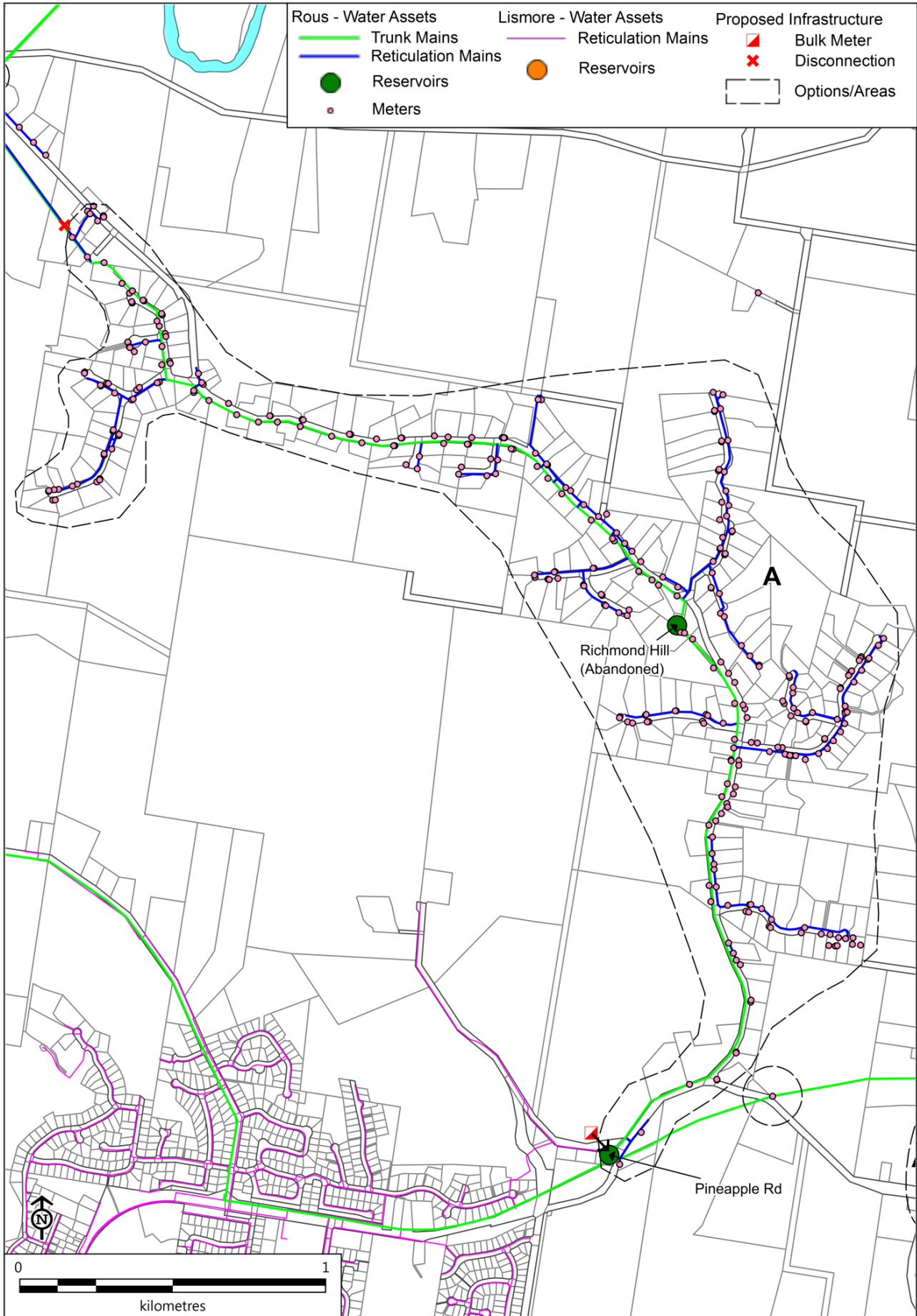


Figure 5: Current configuration and proposed transfer approach - Richmond Hill

3.6 Monaltrie

3.6.1 Current Configuration

The Monaltrie area (Figure 6 – Area A) contains 48 customers currently supplied via a reticulation main and the RCC Gundurimba reservoir supplied by the RCC Evans Head 375 mm trunk main. A new 100 mm main is being constructed by RCC along Monaltrie Road and Johnston Street to replace the current connection to the Coraki 225 mm main.

For water quality reasons, the Gundurimba Reservoir has been isolated from the supply system however this can be reinstated but does not supply customers at high elevation.

3.6.2 Proposed Approach

The proposed transfer of retail assets and customers from RCC to LCC involves the extension of Lismore Central reticulation network (uPVC 100 mm) along Wyrallah Road to connect to the new South Gundurimba reticulation main (Figure 6 and Appendix A) with supply from Gundurimba reservoir and a high pressure zone.

Table 6: Estimated cost - Monaltrie

Stage	Cost (\$)
Total	1,036,000

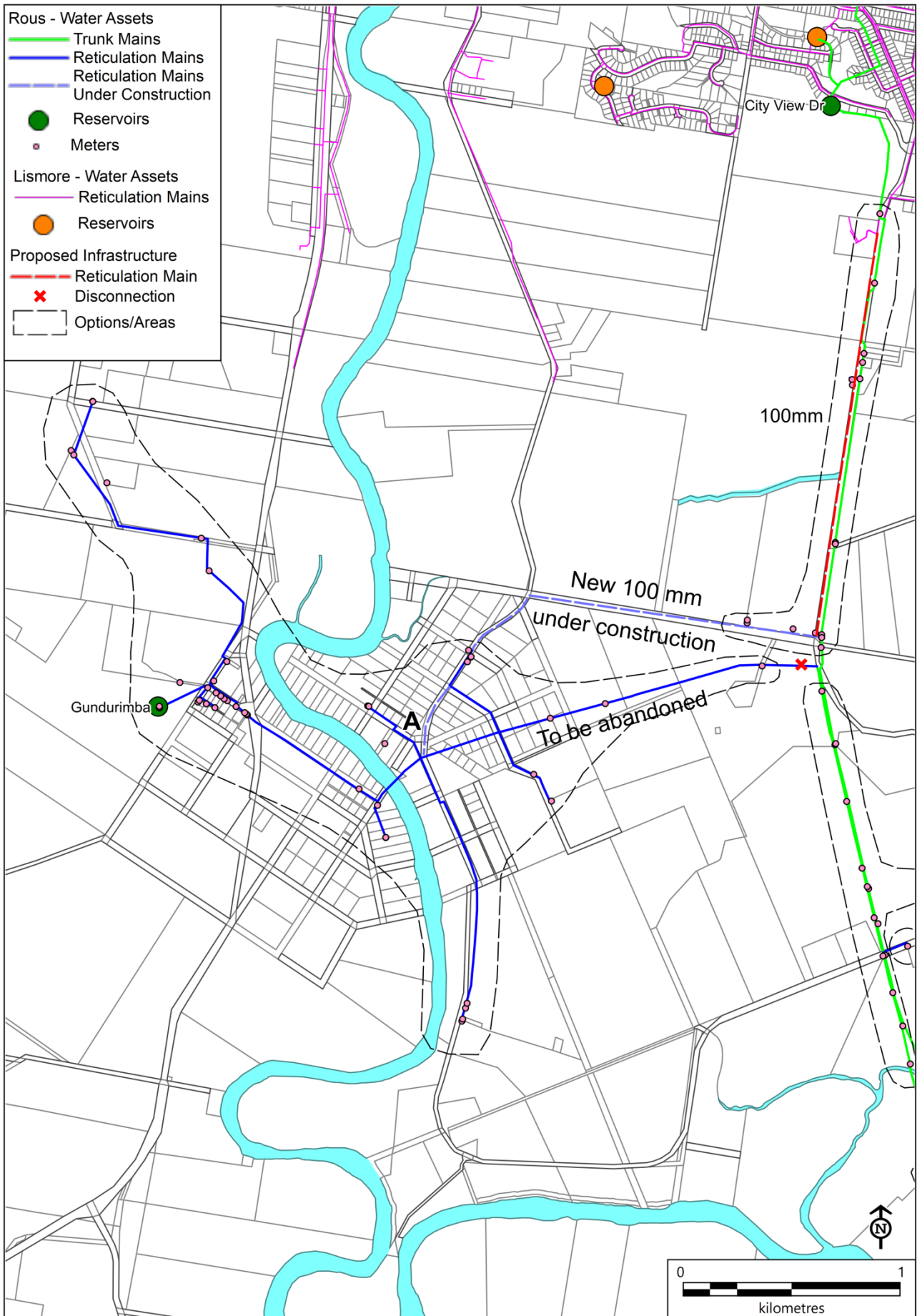


Figure 6: Current configuration and proposed transfer approach - Monaltrie

3.7 North Woodburn

3.7.1 Current Configuration

The North Woodburn area (Figure 7 – Area A) contains a small RCC retail network that is supplied by the RCC Evans Head 375 mm trunk main via the LCC (North Woodburn) reticulation network. Area A contains 10 customers of which six are supplied through a master meter.

3.7.2 Proposed Approach

The transfer of retail assets and customers from RCC to LCC for the North Woodburn area involves transfer of the RCC 200 mm reticulation main and connected meters with no additional infrastructure required.

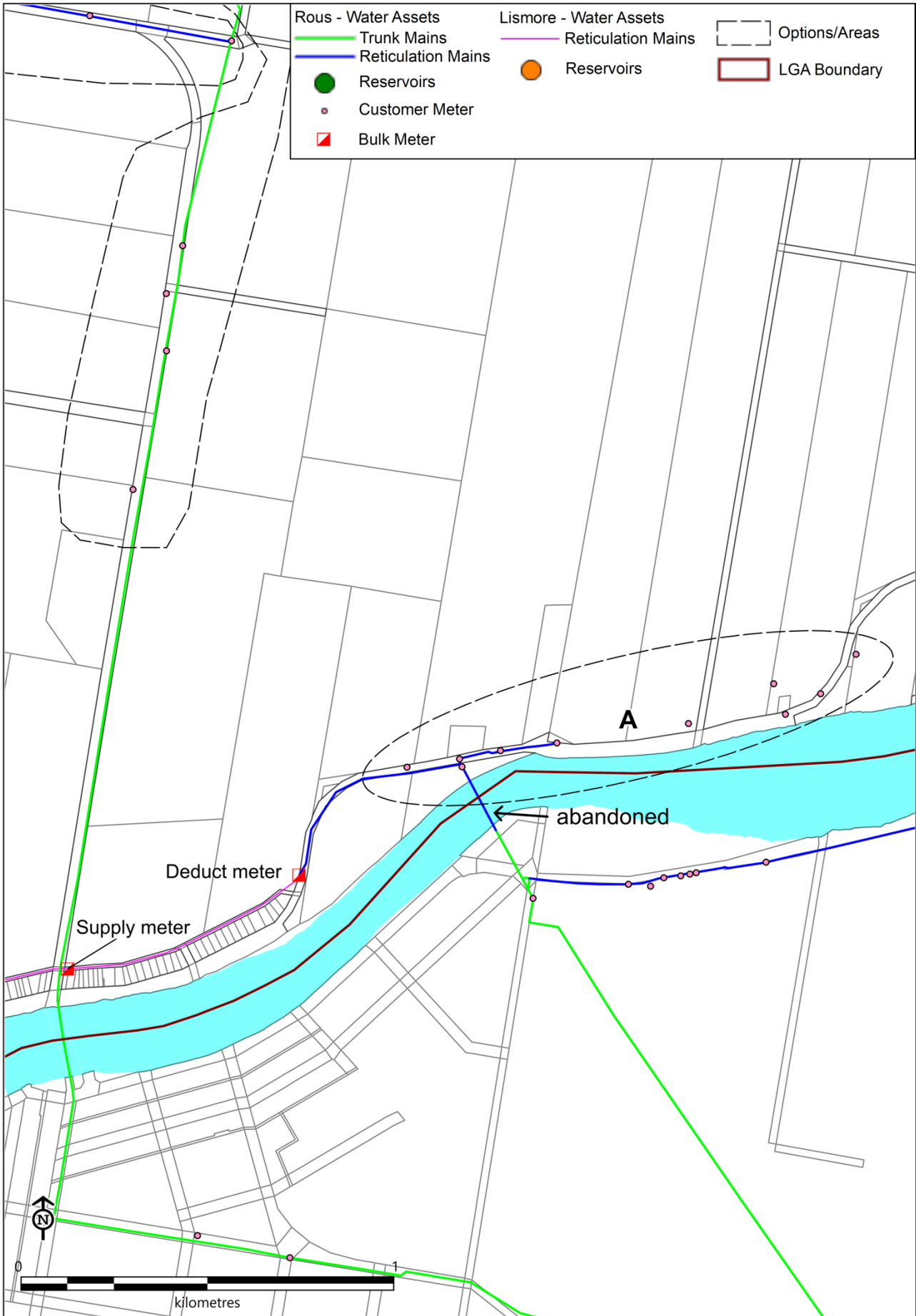


Figure 7: Current configuration and proposed transfer approach – North Woodburn

3.8 Bexhill

3.8.1 Current Configuration

Bexhill (Figure 8 – Area A, B & potential new development) includes a large group of customers with the potential for additional growth in the future. This area contains 187 (Area A = 114, B = 13 with 60 new customers assumed as part of a proposed development) current and future customers. The Area A and B reticulation networks are currently supplied via the RCC Lismore 600 trunk main. The RCC Bexhill tanks have been abandoned and RCC is currently installing new reticulation mains to bypass this area and improve reliability to customers east of Bexhill village.

3.8.2 Proposed Approach

A concept for an urban reticulated supply was developed by Ardill Payne (2014) with consideration for servicing the proposed development. The size of the proposed development has been reduced since that time. The proposed transfer of retail assets and customers from RCC to LCC involves two stages based on the preferred concept developed by Ardill Payne (2014) as shown in Figure 8 and Appendix A.

Stage 1 – Transfer of Bexhill Township

The first stage involves the supply of customers in Area A from a new reservoir to the west of the township with a 200 mm main supplied from the Lismore 600 mm trunk main. An additional main (100 mm) would supply the proposed new development to the east of the Bexhill township.

Stage 2 – Transfer of Cosy Camp reticulation

This stage involves the supply of the retail customers to the north of Bexhill (Area B - Cosy Camp) from the Bexhill reticulation network with a short section of main (50 mm) along Bangalow Road connecting the two networks.

Table 7: Estimated cost - Bexhill

Stage	Cost (\$)
Stage 1	2,566,000
Stage 2	204,000
<i>Total</i>	<i>2,770,000</i>

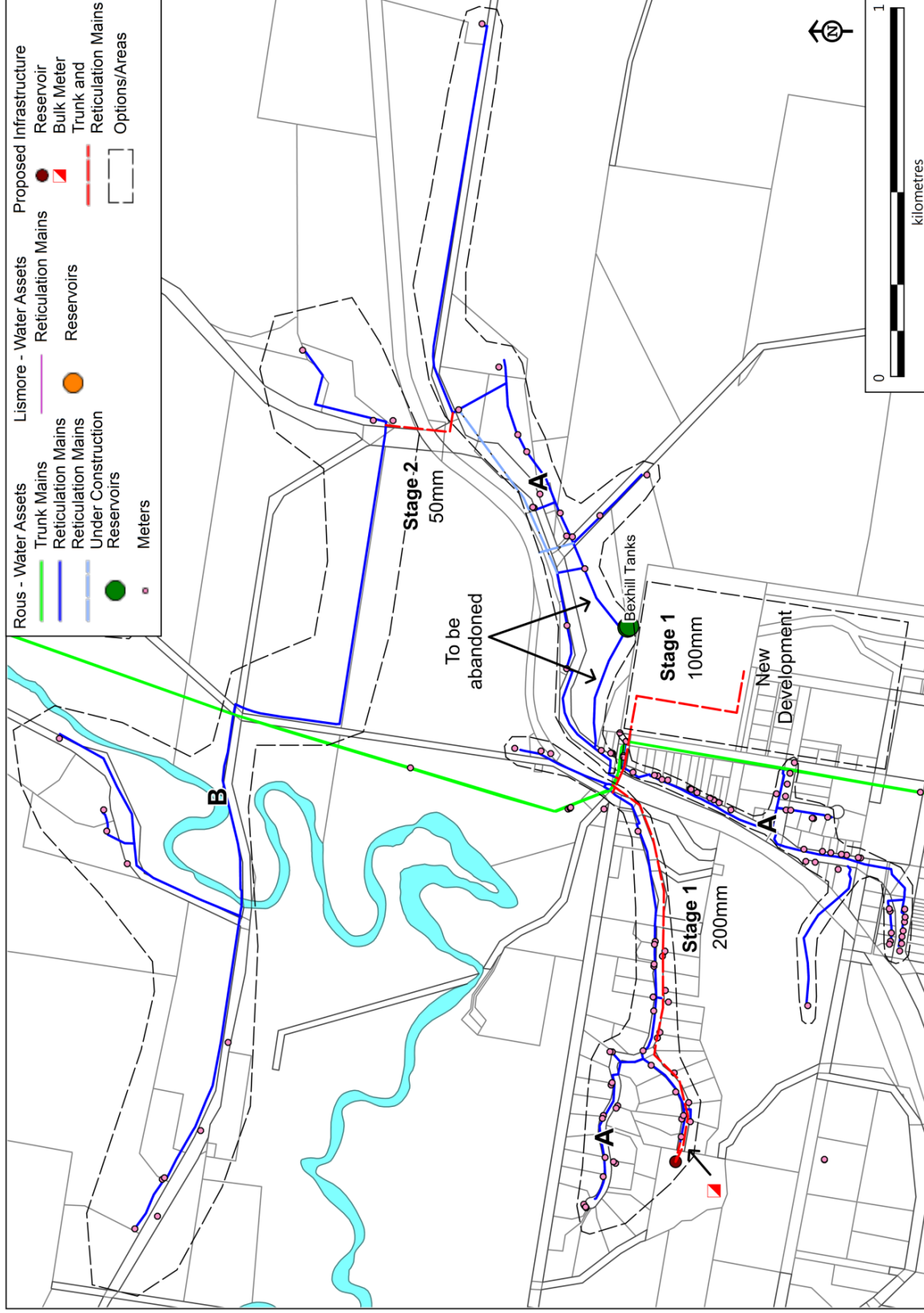


Figure 8: Current configuration and proposed transfer approach - Bexhill

3.9 North Ballina

3.9.1 Current Configuration

The North Ballina retail areas (Figure 9) include 53 customers (Area A = 34, B = 2, C = 15 & D = 2). Customers within Area A are supplied by a RCC reticulation network (Summerhill Crescent) supplied from the RCC Ballina 375 mm trunk main. Area B and C customers are supplied via direct connection to the Ballina 375 mm main and Area D customers are supplied by reticulation main along Tamarind Drive connected to the RCC Ballina 300 mm trunk main

3.9.2 Proposed Approach

RCC and BaSC have previously discussed the potential transfer of water supply assets and retail customers considered as part of BaSC's Pressure Reduction Zones program in 2014 (GeoLINK, 2014). The assets considered included the mains, valves and hydrants at Ross Lane and Cumbalum (south of the Ballina Heights reservoir). The proposed transfer of retail assets and customers from RCC to BaSC for the North Ballina area encompasses two stages, similar to the 2014 proposal (Figure 9 and Appendix A).

Stage 1 – Transfer of Summerhill Crescent network

This stage involves the supply of Area A (Summerhill Crescent) from the Ballina Heights reticulation network with a new connecting main (100 mm) along Deadmans Creek Road.

Stage 2 – Transfer of North Ballina area

All RCC assets south of the BaSC Ballina Heights reservoir would be supplied from the Ballina Heights Reservoir and the Ballina 375 mm main with a short section of connecting main. The supply configuration for customers in Areas C and D would remain the same.

Table 8: Estimated cost - North Ballina

Stage	Cost (\$)
Stage 1	310,000
Stage 2	397,000
<i>Total</i>	<i>707,000</i>

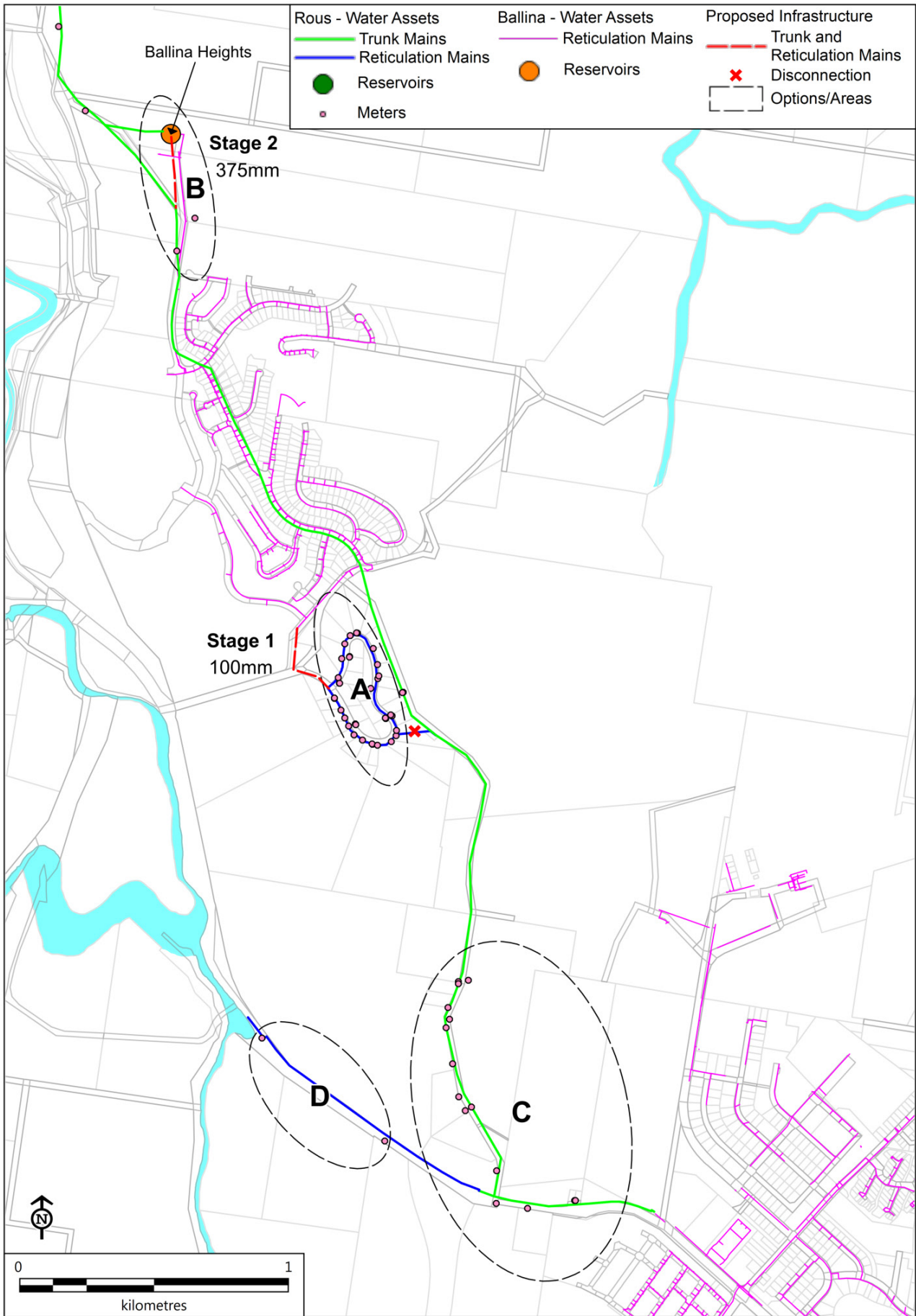


Figure 9: Current configuration and proposed transfer approach - North Ballina

3.10 Summary

This investigation has further developed nine potential options for the transfer of RCC retail customers and assets to the respective council of each LGA.

The cost estimates for the transfer options are summarised in Table 9.

Table 9: Summary of transfer options

Transfer Option	LGA	No. of customers	Capital cost (\$)	Capital cost per customer (\$)
Ewingsdale (Stage 1)	BySC	229	2,604,000	11,400
Ewingsdale (Stage 2)	BySC	229	1,164,000	5,000
<i>Ewingsdale (Stage 1 and 2)</i>	<i>BySC</i>	<i>229</i>	<i>3,768,000</i>	<i>16,400</i>
Bangalow (Stage 1)	BySC	5	72,000	14,400
Bangalow (Stage 2)	BySC	32	120,000	3,750
<i>Bangalow (Stage 1 and 2)</i>	<i>BySC</i>	<i>37</i>	<i>192,000</i>	<i>5,189</i>
Eureka	BySC	26	704,000	37,100
Skidders Shoot	BySC	24	608,000	25,300
Richmond Hill	LCC	319	144,000	450
Monaltrie	LCC	48	1,036,000	21,600
North Woodburn	LCC	10	0	0
Bexhill (Stage 1)	LCC	174	2,566,000	14,700
Bexhill (Stage 2)	LCC	13	204,000	15,700
<i>Bexhill (Stage 1 and 2)</i>	<i>LCC</i>	<i>187</i>	<i>2,770,000</i>	<i>14,800</i>
North Ballina (Stage 1)	BaSC	34	310,000	9,100
North Ballina (Stage 2)	BaSC	19	397,000	20,900
<i>North Ballina (Stage 1 and 2)</i>	<i>BaSC</i>	<i>53</i>	<i>707,000</i>	<i>13,300</i>

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GeoLink (2014) *Identification of Assets for Transfer - CURA A & B*, Memo to Rous Water

Hydrosphere Consulting (2017) *Investigation into Options for Transfer of RCC Retail Customers and Assets to Constituent Councils*, RCC Country Council, November 2017

NOW (2014) *NSW Reference Rates Manual – Valuation of Water Supply, Sewerage and Stormwater Assets*, Department of Primary Industries – NSW Office of Water, June 2014

APPENDIX A: CUSTOMER GROUPS AND PROPOSED ASSET/CUSTOMER TRANSFER OPTIONS

Transfer of Retail Assets/Customers Groups	Summary	Modifications required to provide to transfer service	New Assets required	Assets to be transferred	Options/ Areas	Meters	2500 Peak demand (KL)	L/E T/d Reservoir size (ML)	Pipe Length (m)	Pipe Length (km)	Number of connections to Retic Mains	Number of connections to Meters	Reservoir Ground Elevation (m)	New/Existing Reservoir	TWL (m)	Highest Meter (m)	Elevation Difference	Old Retail Group	Main Suburb	LGA	
Ewingsdale	Ewingsdale contains two stages which involve the installation of new trunk mains running off the West Byron reticulation network and the transfer of Rous reticulation mains and meters. Sections of the new mains will follow the alignment of the Rous trunk main. This is to be followed by the installation of a new reservoir at the St Helena reservoir location which is provide addition supply for future growth.	Stage 1 - Construction of a new reservoir to supply the Ewingsdale area. The reservoir to be filled from St Helena reservoir and positioned within the same lot of land. A bulk meter to be placed between the reservoirs. The new reservoir to be connected to the Ewingsdale network via a new trunk main installed along the existing escarpment of the Rous trunk mains. Stage 2 - Connection of reticulation mains and meters to a new trunk main connected to the West Byron reticulation network (UPVC 150) opposite Cavanbah Centre. PRV required.	Trunk main Reservoir & Trunk main	Meters Rous reticulation mains & Meters	A	229	687	0.70	2,360	2.4	2	0	48	Coopers Shoot Res/Coopers Shoot Res North	53	50	-2	EW2	Ewingsdale	Byron	
Bangalow	Bangalow involves the installation of new reticulation mains fed directly via the Granuaille Reservoir or off the Bangalow retic network and the transfer of rous reticulation mains and meters over to this new network. Sections of the new mains follow the alignment of the Rous trunk mains.	Stage 1 - Transfer of Rous reticulation main and connected meters (Granuaille retic) from Rous trunk main (Byron 300) over to new high pressure zone fed via the Granuaille Reservoir. Stage 2 - Transfer of a section of Rous trunk main (Byron 300), connected meters and attached reticulation network (Dudgeon Lane retic). Combined	Trunk meter, Trunk Reservoir & Trunk main	Rous reticulation main & Meters	A	5	15	-	-	-	1	1	100		105	110	-10	BA3	Bangalow	Byron	
Eureka	Construction of a new supply trunk main off Rous trunk main (St Helena 525) to Rous Eureka reservoir which includes the installation of a bulk meter. The reservoir and new main will supply the Eureka Road retic and including the high pressure zone to the north east. New reticulation main to be extended between the Rous reticulation networks (Eureka Road retic and Bencuna Lane retic) by RCC in 2018/19.	Construction of a new supply trunk main off Rous trunk main (St Helena 525) to Rous Eureka reservoir which includes the installation of a bulk meter. The reservoir and new main will supply the Eureka Road retic and including the high pressure zone to the north east. New reticulation main to be extended between the Rous reticulation networks (Eureka Road retic and Bencuna Lane retic) by RCC in 2018/19.	Bulk meter, Trunk main & Reticulation main	Reservoir, Rous reticulation mains & Meters	A	19	57	880	0.9	0.9	2	0	130	Eureka Reservoir	140	140	-10	EU8, EU9	Eureka	Byron	
Skimmers Shoot	Transfer of two Rous reticulation networks and meters from Rous trunk mains (Byron 150 & Coopers Shoot 375) to Byron trunk main	Transfer of two Rous reticulation networks and meters from Rous trunk mains (Byron 150 & Coopers Shoot 375) to Byron trunk main	Reticulation main	Rous reticulation mains and meters	A	24	72	720	0.7	0.7	4	7	48	Coopers Shoot Res/Coopers Shoot Res North	53	56	-8	SS3, SS2 & part of SS1	Skimmers Shoot	Byron	
Richmond Hill	Transfer of Rous trunk main (Richmond Hill 150), Rous reticulation network, reservoir and connected meters to Lismore Council. Richmond Hill network to be supplied via Pineapple Hill reservoir with a bulk meter installed on the reservoir inlet. Disconnection of the Rous reticulation main (80 AC) and the Rous trunk main (Richmond Hill 300), which both connect to Rous trunk main (Lismore 600), north of the Richmond Hill network.	Transfer of Rous trunk main (Richmond Hill 150), Rous reticulation network, reservoir and connected meters to Lismore Council. Richmond Hill network to be supplied via Pineapple Hill reservoir with a bulk meter installed on the reservoir inlet. Disconnection of the Rous reticulation main (80 AC) and the Rous trunk main (Richmond Hill 300), which both connect to Rous trunk main (Lismore 600), north of the Richmond Hill network.	Bulk meter Reticulation main	Rous trunk main, reservoir, reticulation mains & meters	A	319	957	50	0.1	0.1	2	0	184	Bulk meter off Pineapple Hill Reservoir	192	178	6	RH1	Richmond Hill	Lismore	
Monaltrie	Transfer of Rous reticulation mains and meters (South Gundurimba retic) over to Lismore Council via the extension of the Lismore Central reticulation network (UPVC 100mm) and disconnection from Rous trunk main (Coraki 225). High pressure zone near reservoir.	Transfer of Rous reticulation mains and meters (South Gundurimba retic) over to Lismore Council via the extension of the Lismore Central reticulation network (UPVC 100mm) and disconnection from Rous trunk main (Coraki 225). High pressure zone near reservoir.	Reticulation main	Rous reticulation mains, meters and reservoir	A	48	144	2,140	2.1	2.1	3	0	60	New Reservoir or upgrade of Sth Gundurimba Reservoir	64	44	16	MO1	Monaltrie	Lismore	
North Woodburn	Direct transfer of Rous reticulation main (200 AC retic) and connected meters.	Direct transfer of Rous reticulation main (200 AC retic) and connected meters.	Reticulation main, supply main & bulk meter	Rous reticulation main & meters	A	10	30	460	0.5	0.5	0	0	NA	NA	NA	10	NA	NA	NW1	North Woodburn	Lismore
Bexhill	Ardill Payne (2014) concept	Stage 1 - Transfer of three Rous reticulation networks and connected meters through the installation of new reservoir west of Bexhill township with additional supply line, bulk meter and reticulation main to provide a point of supply for the proposed new development. This option follows the Stage 1 Concept design prepared by Ardill Payne for the Bexhill township. Stage 2 - Transfer of Rous reticulation network (Cosy Camp retic) from Rous trunk main (Wilson River 600) to the network created in Stage 1 via the construction of a new reticulation main (60mm) along Bangalow Rd.	Reservoir, reticulation main, supply main & bulk meter	Reticulation mains & meters	A, New Development	174	522	0.60	2090	2.1	4	0	105	New Reservoir filled from Lismore 600	NA	100	5	BE3, BE4 & BE5	Bexhill	Lismore	
North Ballina	GeoLINK (2014) concept	Stage 1 - Transfer of Rous reticulation main and connected meters (Summerhill Crescent retic) from Rous trunk main (Ballina 375) over to Ballina Heights reticulation network via a new reticulation main (100mm). Stage 2 - Transfer of a sections of Rous trunk mains (Ballina 375 & 300), connected meters and attached reticulation network (Tamanind Drive retic) via redirecting supply through the Ballina Heights reservoir with the construction of a new trunk main (375mm)	Reticulation main	Rous reticulation main & meters	A, B, C, D	187	561	0.6	2350	2.4	6	0	80	Ballina Heights Reservoir via Ballina Heights retic	NA	40	-40	BE2	Bexhill	Lismore	
						34	102	350	0.4	0.4	3	0	80	Ballina Heights Reservoir via Ballina Heights retic	85	70	10	CU2	Cumbalum	Ballina	
						19	57	300	0.3	0.3	2	0	80	Ballina Heights Reservoir via Ballina Heights retic	85	70	10	CU2, CU3, BL1 & BL2	Cumbalum	Ballina	
						53	159	650	0.7	0.7	5	0	70		70	10					

APPENDIX B: DETAILED COSTINGS

The unit rates used for estimating costing are comprised of 2017/18 reference rates which allow for 10% SID (Survey, Investigation, Design and Project Management) for water mains and 15% SID for reservoirs as well as potential additional costs for rock excavation, construction difficulties and dewatering.

<i>Ewingsdale Stage 1</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Trunk Main	200	mm	3140	m	\$ 430	\$/m	\$1,350,200
Main Connections	No.		2		\$ 50,000		\$100,000
Reservoir	0.70	ML	1		\$ 1,000	\$/kL	\$700,000
Bulk Meter			1		\$ 20,000		\$20,000
Sub-total							\$2,170,200
Contingency							\$434,040
Total							\$2,604,240
<i>Ewingsdale Stage 2</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Trunk Main	150	mm	2360	m	\$ 360	\$/m	\$849,600
PRV			1		\$ 20,000		\$20,000
Main Connections	No.		2		\$ 50,000		\$100,000
Sub-total							\$969,600
Contingency							\$193,920
Total							\$1,163,520
Ewingsdale Total (Stages 1 & 2)							\$3,767,760
<i>Bangalow Stage 1</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Main Connections	No.		1		\$ 50,000		\$50,000
Meter Connections	No.		1		\$ 10,000		\$10,000
Sub-total							\$60,000
Contingency							\$12,000
Total							\$72,000
<i>Bangalow Stage 2</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Main Connections	No.		2		\$ 50,000		\$100,000
Sub-total							\$100,000
Contingency							\$20,000
Total							\$120,000
Bangalow Total (Stages 1 & 2)							\$192,000
<i>Eureka</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Trunk Main	150	mm	880	m	\$ 360	\$/m	\$316,800
Main Connections	No.		4		\$ 50,000		\$200,000
Bulk Meter					\$ 20,000		\$20,000
Sub-total							\$536,800
Contingency							\$107,360
Eureka Total							\$644,160

<i>Skidders Shoot</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Reticulation Main	150	mm	190	m	\$ 380	\$/m	\$72,200
Reticulation Main	100	mm	530	m	\$ 310	\$/m	\$164,300
Main Connections	No.		4		\$ 50,000		\$200,000
Meter Connections	No.		7		\$ 10,000		\$70,000
Sub-total							\$506,500
Contingency							\$101,300
Skidders Shoot Total							\$607,800

<i>Richmond Hill</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Main Connections	No.		2		\$ 50,000		\$100,000
Bulk Meter	No.		1		\$ 20,000		\$20,000
Sub-total							\$120,000
Contingency							\$24,000
Richmond Hill Total							\$144,000

<i>Monaltrie</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Reticulation Main	100	mm	2,140	m	\$ 310	\$/m	\$663,400
Booster pump station			1		\$ 50,000		\$50,000
Main Connections	No.		3		\$ 50,000		\$150,000
Sub-total							\$863,400
Contingency							\$172,680
Monaltrie Total							\$1,036,080

<i>Bexhill Stage 1</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Trunk Main	200	mm	1420	m	\$ 430	\$/m	\$610,600
Land acquisition							\$500,000
Reservoir	0.60	ML	1		\$ 1,000	\$/kL	\$600,000
Reticulation Main	100	mm	670	m	\$ 310	\$/m	\$207,700
Main Connections	No.		4		\$ 50,000		\$200,000
Bulk Meter	No.		1		\$ 20,000		\$20,000
Sub-total							\$2,138,300
Contingency							\$427,660
Total							\$2,565,960

<i>Bexhill Stage 2</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Reticulation Main	50	mm	260	m	\$ 270	\$/m	\$70,200
Main Connections	No.		2		\$ 50,000		\$100,000
Sub-total							\$170,200
Contingency							\$34,040
Total							\$204,240
Bexhill Total (Stages 1 & 2)							\$2,770,200

<i>North Ballina Stage 1</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Reticulation Main	100	mm	350	m	\$ 310	\$/m	\$108,500
Main Connections	No.		3		\$ 50,000		\$150,000
Sub-total							\$258,500
Contingency							\$51,700
Total							\$310,200
<i>North Ballina Stage 2</i>							
Item	Size	Unit	Quantity	Unit	Unit rate	Unit	Cost (\$)
Trunk Main	375	mm	300	m	\$ 770	\$/m	\$231,000
Connections	No.		2		\$ 50,000		\$100,000
Sub-total							\$331,000
Contingency							\$66,200
Total							\$397,200
North Ballina Total (Stages 1 & 2)							\$707,400

Demand management status

2311/16

Recommendation

In progressing the actions in the new Regional Demand Management Plan, it is recommended that the:

1. Quarterly reporting procedure and tables be endorsed.
2. Demand Management Working Group meet in September 2018.
3. Constituent councils confirm adoption/endorsement of the Regional Demand Management Plan.

Purpose

To provide a standard procedure for RDMP reporting and an update on the July-September 2018 quarterly actions identified in the Regional Demand Management Plan (RDMP).

Information

A standard procedure for RDMP reporting has been developed. Within two weeks from the end of each quarter the following will be provided by RCC to the RWSALC:

- Reporting table for RDMP Actions (Appendix A)
- Communication and Engagement Strategy (Appendix B)

The RWSALC will be responsible for ensuring actions are completed and assessing if the plan is meeting its objectives.

The status of RDMP Actions and the Communication and Engagement Strategy for the July-September 2018 quarter has been included in Appendix A and B for your information.

Rous County Council (RCC) wrote to the General Managers of the constituent councils on 26 June 2018 requesting adoption/endorsement of the Regional Demand Management Plan. To date a response has only been received from Lismore City Council.

Proposed actions

It is proposed that the Demand Management Working Group meet in September 2018. The purpose of the meeting will be to:

- Discuss the collated results of the water billing surveys on connection types undertaken by the councils. The aim will be to develop standardised definitions of connection types across the region to provide comparable, useful and accurate data on customer demand.
- Provide a draft design of regional communication materials for the 12-simple water saving steps and target 160 campaign. The intention is for these to be promoted by each of the constituent councils to support consistent messaging and foster water conservation behaviour.
- Discuss any other actions which need addressing.

Conclusion

A standard procedure for RDMP reporting and an update on the July-September 2018 quarterly actions identified in the Regional Demand Management Plan (RDMP) has been provided.

A request has been made for the constituent councils to confirm adoption/endorsement of the Regional Demand Management Plan. It is proposed that the Demand Management Working Group meet in September 2018.

Appendix A: Reporting table for RDMP Actions

Priority activity	RDMP task	Budget	Who	When	Status	Completion date	KPI result
Monitoring, Evaluation and Reporting							
Develop standard procedure for reporting of RDMP action status and KPIs (including format, responsibilities and timing)	1.1		RCC	Q1	This document and a Communication and Engagement Strategy will be provided at the beginning of each quarter to the RWSALC for reporting of RDMP action status and KPI's for the previous quarter		
Develop standardised definitions of connection types across the region	1.3		RCC with input from all LWUs	Q1	Survey sent to water billing departments at constituent councils. RCC to collate results and arrange a working group meeting to develop standardised definitions		
Develop standardised reporting of water balance data	1.6		RCC	Q1	See Water Loss Summary report for the August RWSLACM		
Investigate the development of a customer relationship management (CRM) system to monitor customer data relating to RDMP implementation	1.9	10,000	RCC	Q1	Meeting with Manager of Corporate and Commercial with a brief provided on the needs and uses of a CRM system. RCC is considering an organisational wide CRM in this financial year		
Water Loss Management							
Engage consultant to develop WLMs	2.1	80,000	RCC with input from all LWUs	Q1	See Water Loss Summary report for the August RWSLACM		
Develop local NRW targets for each service area/zone to support achievement of regional targets	2.2		All LWUs	Q2	To be undertaken when consultant undertakes the WLMs with each council		

Priority activity	RDMP task	Budget	Who	When	Status	Completion date	KPI result
Sustainable Water Partner Program							
Develop a communication and engagement strategy to promote the SWPP to target customers	3.1	5,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Review and update promotional tools for the SWPP and develop a media kit	3.2	5,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Develop SWPP recognition program	3.6		RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Smart Metering							
Review program objectives and scope, technologies/suppliers for infrastructure, software and devices	4.1	30,000	RCC with input from all LLWUs	Q1	Finalising brief to send out to prospective consultants. Consultant to be selected by the end of September 2018		
Recycled Water							
Develop procedures for implementation of rebates and reporting requirements	5.1		RCC with input from BaSC and BySC	Q1	Procedure developed and discussed with Ballina Shire Council and Byron Shire Council on 19 July 2018	19/7/2018	
Document strategy for connection to existing recycled water systems or expansion of existing systems	5.3		BaSC and BySC	Q1	Strategy discussed at meeting with BaSC and RCC on 19/7/2018. Developed by Andrew Swan and emailed to RCC on 20/7/2018. BySC indicated at meeting that they would require time to develop strategy and were happy for BaSC to take the lead and the funding available for the first two years	20/7/2018	
Develop marketing strategy and promote opportunities for recycled water connections to existing and new customers	5.4		BaSC and BySC	Q1	Strategy to be developed by Catherine Jost at BaSC		

Priority activity	RDMP task	Budget	Who	When	Status	Completion date	KPI result
Rainwater Tank Rebates							
Develop and implement a communication and engagement strategy (including media kit) to increase the uptake of rainwater tank rebates	6.1	5,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Develop a training program for council staff, plumbers and tank suppliers	6.2		RCC	Q1	Training program currently being developed in consultation with tank suppliers and plumbers.		
Implement rebate program within RCC supply area	6.3	60,000 p/a	RCC with input from LWUs	Q1	Rebate program is being implemented with rebates paid to eligible applicants who apply.	Ongoing	
Community Engagement and Education							
Develop local residential consumption targets to support achievement of regional targets	7.1		All LWUs	Q1	Each constituent council agreed to a local target of 10% reduction on their current residential consumption per capita (L/d) which is shown in Table 15 of the RDMP. The local targets will serve as a KPI to be reported on annually by each council.		
Develop and implement a communication and education program targeting residential households including engagement with customer service staff	7.2	5,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Develop communication materials including webpage, fact sheets, media releases and social media posts	7.3	3,000	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Develop and implement a communication and engagement program targeting schools	7.5	5,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		
Ongoing development and delivery of community engagement and education program	7.11	15,000 p/a	RCC	Q1	Refer Community and Engagement Strategy which provides the status of priority activities associated with this RDMP task		

Appendix B - Communication and Engagement Strategy July-September 2018

Sustainable Water Partner Program - RDMP Action 3

Priority Activity	RDMP tasks	Audience	Resources required	Engagement/distribution method	Who	Budget	Completion date
Brochure	3.2	Highest water users	Written content for final page of brochure to include "Why Save Water Diagram", info on past success of SWPP and content for recognition program. Design of final page brochure (utilising graphic artist) Printing of entire brochure (4 pages, double sided)	Email/face to face	WSO		30/7/2018
Work with business's who have already been contacted about the SWPP	3.3	Byron Bay High School, Byron and Ballina Discovery Parks	Brochure	Email/phone call/face to face visit Encourage businesses to undertake water saving plan.	WSO		On-going
Create a Top 20 non-residential water users contact list	3.3	Top 10 non-residential water	Detailed contact list	Phone call	EO and EXT		30/7/2018
Develop Recognition Program	3.6	Highest water users	Create updated content for promoting Recognition program, i.e. case studies (i.e. Lismore Shopping Centre)	RCC website Distribution by WSO in person	EO and EXT		30/9/2018

Residential Rainwater Tank Rebate Program - RDMP Action 6

Priority Activity	RDMP task	Audience	Resources required	Engagement/distribution method	Who	Budget	Completion date
Promotion of rainwater tank rebates	6.1		Schedule for businesses/organisations displaying pull-up banners with details of rotation throughout each shire. Pull up banners and flyers Simple fact sheet	Face to face hand over of promotional material and training session with customer service teams of the business's/organisations who are promoting the rainwater tank rebates. Primex Art vs Science Festival Sustainable House Day Media Release	WSO		

Community Engagement and Education - RDMP Action 7

Priority Activity	RDMP task	Audience	Resources required	Engagement/distribution method	Who	Budget	Completion date
Identify events/initiatives that are gaining traction which RCC can have a presence at throughout the year	7.2 7.11	Households and non-residents	List of potential events with associated dates	Collaboration and joint-promotion with key stakeholders i.e. constituent councils/tank suppliers.	WSO		
Develop communication materials	7.3		A set of 12 simple water saving steps (to be graphically designed) and utilised by each of the constituent councils to foster water conservation behaviour. A regional water consumption target campaign of 160 (L/d) per person as a call to action the simple water saving steps.	Social media for all councils Website Water bills	EO and EXT		
Why Save Water Diagram	7.3	High Water Users: Residential and Businesses	Finalise design of Why Save Water Diagram with Graffiti Design Pull up banner displaying diagram	Diagram displayed on SWPP brochure (see SWPP priority activities)	WSO		
Community Event	7.11		Rainwater tank promotional material	Stall at Art vs Science Festival Promotion at Primex Sustainable House Day On-line	WSO		
Develop a communication and engagement program targeting schools	7.5	Primary and Secondary Schools	Resource inventory and project planning from Dorroughby Environmental Education Centre.		EO, WSO and EXT		

CONTACT LIST 01 – EMERGENCY COMMUNICATION PROTOCOL

Overview

This document outlines the communication protocols for contact between Rous County Council, the Constituent Councils, Emergency Services and the Northern Rivers Public Health Unit (NSW Ministry of Health) in the event of a water supply emergency.

Procedure

The following Figure 1.0, shows the communication requirements of Rous County Council when a water supply emergency is active. It also includes the individual plans and contact lists that Rous County Council and each Constituent Council is responsible to maintain.

Figure 1.0 – Emergency Communication Protocol

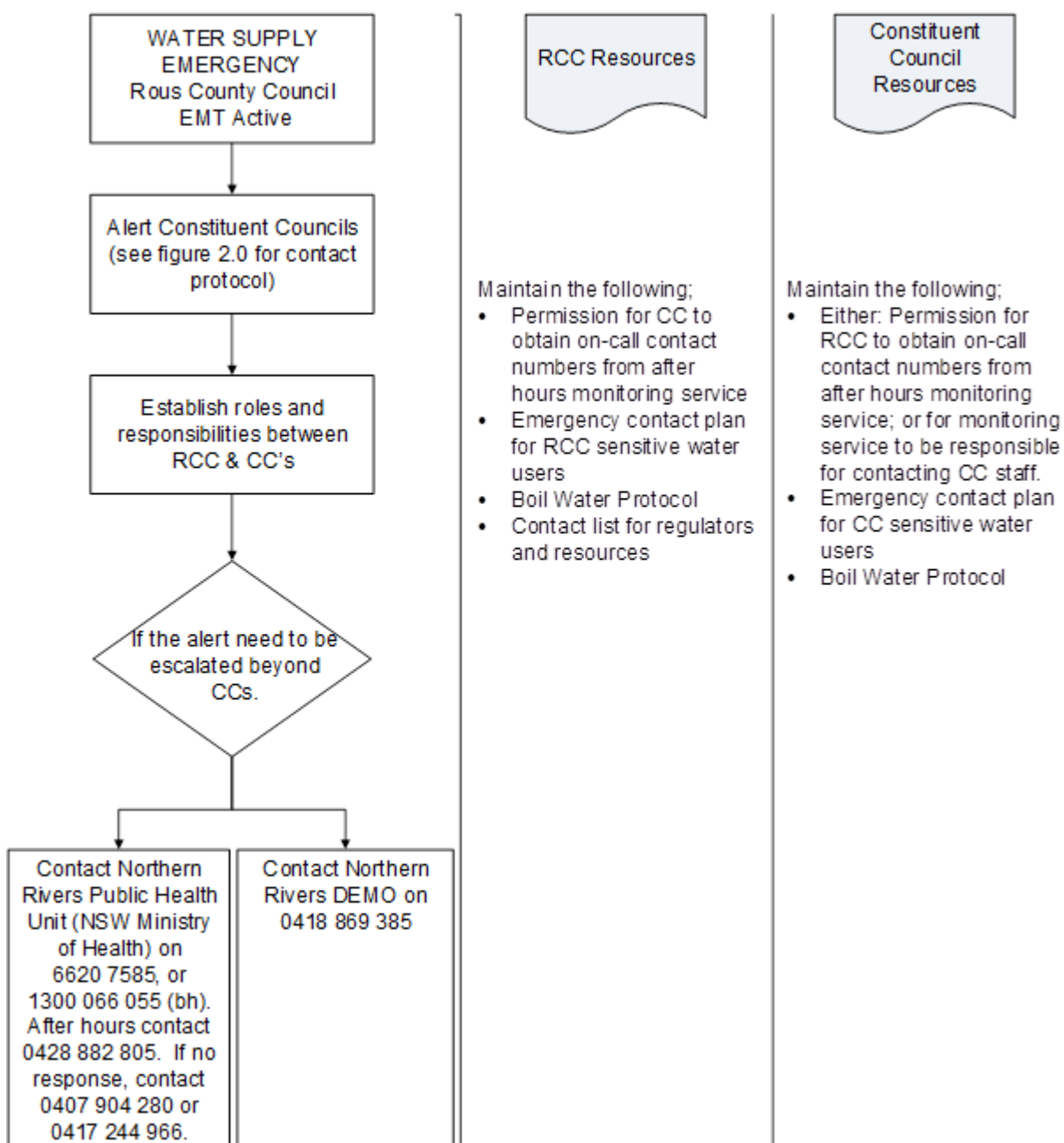
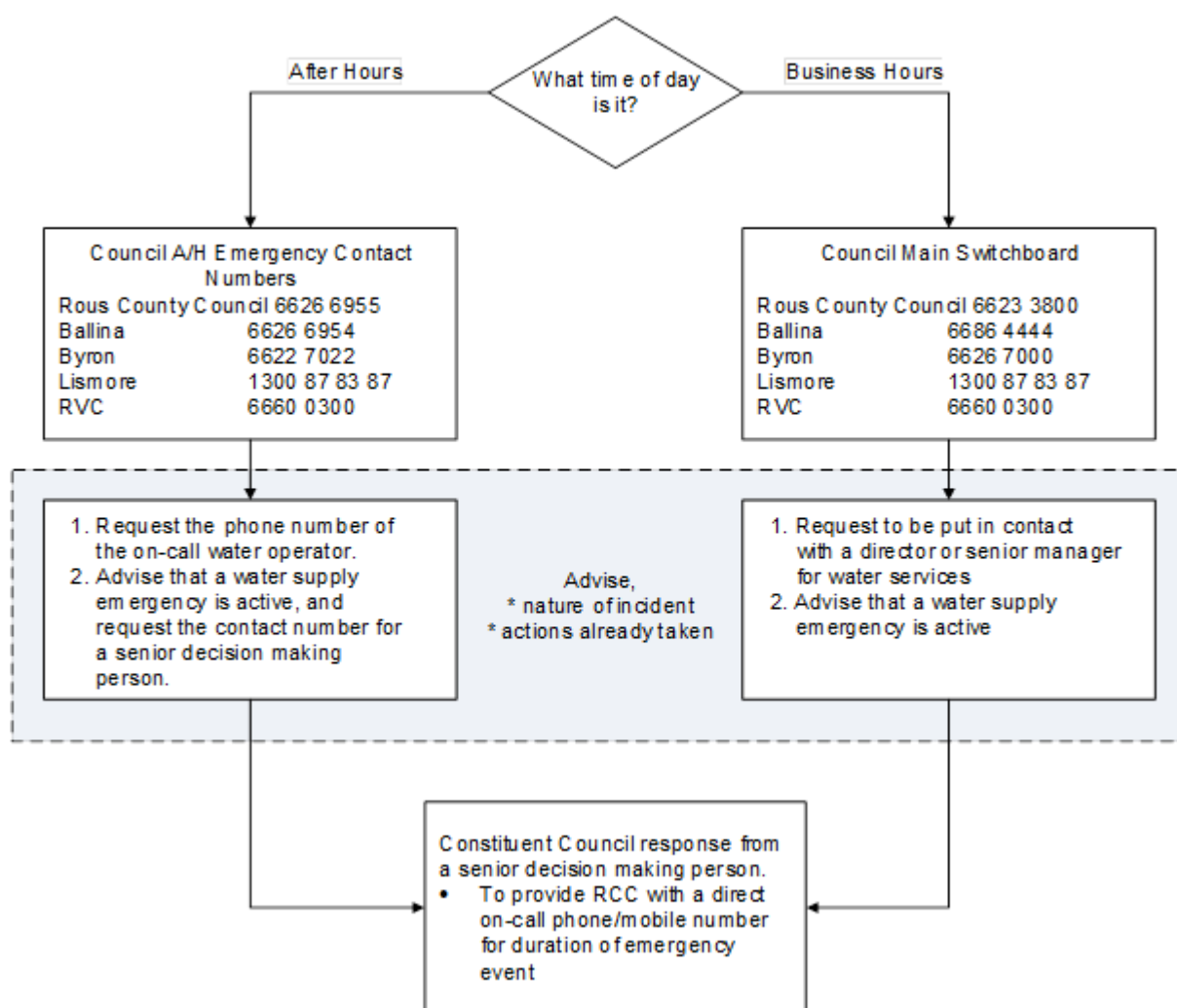


Figure 2.0 – Council Emergency Communication Protocol



RELATED PROCEDURES

Document	Name	Link

RELATED DOCUMENTS

Document Number	Document Name	Link
N/A	Water Supply Agreement with Constituent Councils - June 2014	Wiki link
N/A	Rous Drought Management Plan – August 2016	Wiki Link

RESOURCES AND PREPARATION

Item	Quantity	Storage Location