

Report No:	RESC11-06-05
File No:	
Date:	7 June 2011
<b>Decision Required</b>	

## REPORT SUMMARY

**Report to:** Engineering Services Committee  
**Meeting Date:** 23 June 2011  
**Report Author** Jeff Cuthbertson, Utilities Asset Manager  
**Subject:** **MAPUA WATER SUPPLY – TEMPORARY LIFTING OF WATER CONNECTION MORATORIUM**

### EXECUTIVE SUMMARY

Following leak detection surveys of the Mapua/Ruby Bay water reticulation and subsequent repairs to the reticulation, extra water (up to 54m<sup>3</sup>/day) has been available for new water connections.

### RECOMMENDATION/S

That the report be received.

### DRAFT RESOLUTION

**THAT the Engineering Services Committee receives the Mapua-Ruby Bay Water Supply, Temporary Lifting of Moratorium Report, RESC11-06-05; and**

**THAT the Engineering Services Committee approves the lifting of the present moratorium on the Mapua-Ruby Bay Water Supply as noted in the report RESC11-06-05 so that a maximum of 54 m<sup>3</sup> per day of water can be allocated to approved new water connection applications:**

- a) to allow all potential consumers on the Mapua-Ruby Bay Urban Water Supply waiting list to be allocated water subject to normal application and approval;
- b) to allow consumers on the waiting list that apply for water that want a rural-restricted supply are limited to a maximum of 1 m<sup>3</sup> per day per lot, as noted in the report RESC11-06-05; and

**THAT Council reintroduces the water connection moratorium on the Mapua-Ruby Bay Water Supply once the 54 m<sup>3</sup> per day allocation is taken up by new consumers as noted in the report RESC11-06-05.**

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## 1. Purpose

- 1.1 The purpose of this report is to seek approval from the Engineering Services Committee to temporarily lift the moratorium on new water connections on the Mapua Urban and Rural Water Supply.

## 2. Background

- 2.1 Water supply to Mapua is pumped from the Waimea Water Pumping Station located at Lower Queen Street. The water reticulation from Lower Queen Street crosses over to Best Island through the estuary to Rabbit Island, along Rabbit Island and under the Mapua Estuary. Additional water pumping occurs at the Mapua Wharf area to provide extra pressure to supply the two main storage reservoirs of Pomona Road. The Pomona Road reservoirs store approximately 1700 m<sup>3</sup> of water.
- 2.2 In general the pipework that feeds water to Mapua can deliver approximately 2000 m<sup>3</sup> of water per day to Mapua. At periods of peak demand in the past water consumption has been as much as 2500 m<sup>3</sup> per day. The difference between the water supplied (2000 m<sup>3</sup> per day) and the peak water demand of 2500 m<sup>3</sup> per day (ie, 500 m<sup>3</sup> per day) is made up by the demands placed on the storage reservoirs (approximately 1 day's storage for emergencies).
- 2.3 Over the past two years, Council has undertaken an extensive programme of leak detection work throughout the reticulation network within Mapua and Ruby Bay.
- 2.4 Attached are water supply graphs for the summer periods 2006/07, 2007/08 and 2008/09 which show water usage well above the 2100m<sup>3</sup>/day restriction limit.

- 2.5 Also attached are graphs for the summer periods 2009/10 and 2010/11 which show the water usage following the leak detection and repair programme.
- 2.6 Council needs to protect the water that it has committed to supply to consumers. A summary of water commitments is as follows:

### Mapua/ Ruby Bay and Mapua Rural Extension Water Demand

Existing Water allocation	Number of meters/connections	m <sup>3</sup> /day
Existing Metered lots	720 @ 1m <sup>3</sup> /day	720
	70 @ 2m <sup>3</sup> /day	140
	1 @ 70m <sup>3</sup> /day	70
Water reserved for existing subdivision	25m <sup>3</sup> /day	25
Rural restricted connections	230 connections	441
Water losses/leakage	Assumed to be 25%	350
<b>Water allocation needed for present water supply area</b>		<b>1746</b>

Waiting List for water		
Low flow waiting list	Restricted to 1m <sup>3</sup> /day/lot	8
Urban connections	Metered supply 34 lots @ 1m <sup>3</sup> /day	34
To be allocated		2
Water losses/leakage	Assumed to be 25%	10
<b>Water allocation needed for waiting list customers</b>		<b>54</b>
<b>Total water allocation needed for present and waiting list customers</b>		<b>1800</b>

- 2.7 Based on the water allocated as indicated above of approximately 1746 m<sup>3</sup> per day and the maximum summer usage based on the graphical information of approximately 1750 m<sup>3</sup> per day (2010/11) and that restrictions are imposed when water use exceeds 2000 m<sup>3</sup> per day it would appear that a small allocation of water could be made available.
- 2.8 It is suggested that this new allocation be set at an additional 54 m<sup>3</sup> per day which relates to approximately 54 lots of additional water for new connections.

### 3. Present Situation/Matters to be Considered

- 3.1 Council can only supply a certain amount of water to the Mapua-Ruby Bay Reticulation and Reservoir network. During the summer period, the water supply demand over the past few years has increased to a need to supply water in excess of 2400m<sup>3</sup>/day. Generally once water demand exceeds

2000m<sup>3</sup>/day, restriction on water use is required. Council introduced the moratorium on new water connections some time ago as there was insufficient water available for additional growth. Since the introduction, a number of dwellings have been built on titles with water and a number of properties have gone onto the waiting list for additional water when it is available.

- 3.2 It is intended that additional water will become available once the installation of the Motueka Coastal Community Water Supply pipeline has been completed as programmed in Council's Ten Year Plan 2009-2019.

#### **4. Financial/Budgetary Considerations**

- 4.1 Council has budgeted to increase the supply of water to Mapua and Ruby Bay with the construction of the Motueka Coastal Community Water Supply pipeline.

#### **5. Options**

##### **Option 1**

- 5.1 Council has the ability to continue to review the present water situation in Mapua-Ruby Bay and not allocate any further water connections. This will preserve the present water supply limits especially if further leaks occur or if it is decided to limit or remove leak detection expenditure.

##### **Option 2**

- 5.2 It has been established with leak detection and leak repairs that extra water has become available above that which is usually in demand. From the information provided it would appear that a quantity of water up to 54m<sup>3</sup>/day could be released to new customers in Mapua-Ruby Bay on Council's waiting list.

#### **6. Pros and Cons of Options**

- 6.1 It is important to continue to improve the water reticulation network by further leak detection and subsequent repairs. The benefits of the leak detection programme are not only in the conservation of water but the reduction in power costs to pump water to waste and the ability to allocate additional water in the future.
- 6.2 There is a cost to leak detection and over time a reduction in cost-benefit of leak detection versus benefits.

## 7. Evaluation of Options

- 7.1 Staff recommend Option 2 to lift the moratorium to allocate 54m<sup>3</sup> of water per day to new water connection applications in the Mapua/Ruby Bay area,

## 8. Significance

- 8.1 This is not a significant decision according to the Council's Significance Policy.

## 9. Recommendation/s

- 9.1 That the report is received.

## 10. Timeline/Next Steps

- 10.1 Staff will write to all consumers on the waiting list informing them of the allocation of water that has been requested.

## 11. Draft Resolution

- 11.1 THAT the Engineering Services Committee receives the Mapua-Ruby Bay Water Supply, Temporary Lifting of Moratorium Report, RESC11-06-05; and**
- 11.2 THAT the Engineering Services Committee approves the lifting of the present moratorium on the Mapua-Ruby Bay Water Supply as noted in the report RESC11-06-05 so that a maximum of 54 m<sup>3</sup> per day of water can be allocated to approved new water connection applications:**
- a) to allow all potential consumers on the Mapua-Ruby Bay Urban Water Supply waiting list to be allocated water subject to normal application and approval;**
  - b) to allow consumers on the waiting list that apply for water that want a rural-restricted supply are limited to a maximum of 1 m<sup>3</sup> per day per lot, as noted in the report RESC11-06-05; and**
- 11.3 THAT Council reintroduces the water connection moratorium on the Mapua-Ruby Bay Water Supply once the 54 m<sup>3</sup> per day allocation is taken up by new consumers as noted in the report RESC11-06-05.**