

## **STAFF REPORT**

**TO:** Chairman and Members, Engineering Services Committee

**FROM:** Utilities Asset Manager, Jeff Cuthbertson

**DATE:** 7 February 2007

**SUBJECT:** **RICHMOND WEST INFRASTRUCTURE**

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### **1 PURPOSE**

The purpose of this report is to provide information to the Engineering Services Committee regarding the proposed land zone changes for Richmond West and how these changes will affect infrastructure.

### **2 COMMENT**

Council has proposed a land zone change which will have effects on Council's existing and future infrastructure requirements.

Generally the site to be rezoned does not have Council services in place that would satisfy the needs of the proposed area.

#### **2.1 Water**

There is water reticulation that passes through the area generally parallel to the coastline (450 mm diameter main to Champion Road), along Queen Street (375 mm diameter main to the Queen Street Reservoir) and down Headingly Lane (100 mm diameter initially, reducing to 50 mm diameter).

An initial hydraulic model appraisal of the existing reticulation and storage capacities has been undertaken. The findings of this initial model would indicate that there is no spare capacity in the Queen Street reticulation and storage reservoir.

There may be some spare capacity in the Champion Road system. The actual volume of this spare capacity has not as yet been determined. Further work with the water hydraulic modelling is required to assess the limitations.

The model at the initial stages does indicate that the area under the proposed zoning change could not be serviced from the present water reticulation network in Richmond. The model will no doubt confirm that a new reservoir in the Richmond Hills will be required as well as substantial main and pressure relief valves.

The costs required to upgrade and to provide water to this site have not been evaluated or included in any future upgrading proposals included in Council's LTCCP.

#### **2.2 Wastewater**

Council proposes installing a new wastewater pumping station and rising main at the seaward end of Headingly Lane. The pumping main from this pumping station would discharge directly into the Beach Road pumping station. This would mean that none of the

spare flow capacity of the new trunk wastewater main laid in Beach Road would be utilised. It would be the intention that all land generally north of Queen Street (seaward side) and a major proportion of the land to the southern side of Queen Street would be able to gravitate to a pumping station located at the seaward end of Headingly Lane.

The issue of who creates the gravity network to this pumping station will require resolution. It is assumed at this point that land development may be required to be staged and that developers would install the reticulation network themselves and provide the gravity pipe works to Council's pump station.

It is intended that minimal connections are installed for this proposed rezoned land to existing Council reticulation infrastructure.

Construction of the pumping station in Headingly Lane is included in the LTCCP to be undertaken in 2007-2008. However, this may be deferred pending a final resolution of the zoning issue.

### **2.3 Stormwater**

Council has undertaken no planning designs or strategy of the zoned land for the disposal of stormwater.

Strategically Borck's Creek is an essential part of the present and future stormwater disposal network for Richmond and the Richmond Hills area. Reticulation within Richmond needs to be able to access Borck's Creek via an open drain through the proposed rezoned land. Over the past few years Council has started to widen the lower reaches of Borck's Creek to ensure that the water passage will enable and provide longevity for both flood flows now and in the future.

Council has undertaken limited work in designing the minimum water way dimension from Queen Street to State Highway 6. Council has not budgeted to undertake any widening work of Borck's Creek from Queen Street to State Highway 6.

It is intended that developers fund and create a Q50 flood flow channel plus berms through their land when they develop.

Council has budgeted for an open drain to be constructed through the land from Poutama Street/Hunt Street to Borcks Creek in this financial year. Due to issues of land access this work has been deferred to the 2008-2009 financial year.

## **3 RECOMMENDATION**

**THAT this report be received.**

Jeff Cuthbertson  
**Utilities Asset Manager**