



## Public Works & Transportation Committee

Date: Wednesday, June 5<sup>th</sup>, 2002  
Place: Anderson Room  
Richmond City Hall  
Present: Councillor Lyn Greenhill, Chair  
Councillor Kiichi Kumagai, Vice-Chair  
Councillor Linda Barnes  
Councillor Evelina Halsey-Brandt  
Councillor Rob Howard  
Mayor Malcolm D. Brodie (4:07 p.m.)  
Call to Order: The Chair called the meeting to order at 4:00 p.m.

### MINUTES

1. It was moved and seconded  
*That the minutes of the meeting of the Public Works & Transportation Committee held on Thursday, May 23<sup>rd</sup>, 2002, be adopted as circulated.*  
**CARRIED**

### URBAN DEVELOPMENT DIVISION

2. **PROPOSED TRAFFIC CALMING MEASURES – LANEWAY AT 5000 BLOCK OF MINORU BOULEVARD**  
(Report: May 22/02, File No.: 6450-01) (REDMS No. 718190)

It was moved and seconded

- (1) *That the proposed traffic calming measures on the laneway at 5000 block of Minoru Boulevard at an estimated cost of \$6,000, (as recommended in the report dated May 22<sup>nd</sup>, 2002, from the Director, Transportation), be endorsed in principle.*
- (2) *That staff initiate consultation with the adjacent businesses on the above recommended traffic calming measures and report on the outcome prior to Council's further consideration of the improvements.*

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Prior to the question on the motion being called, in response to questions, advice was given by the Manager, Transportation Planning, Victor Wei that consultation with adjacent businesses would take place following adoption of the recommendation by Council. He further advised that there had not been any feedback from the public following the implementation of the speed humps on the laneway south of Alderbridge Way and east of Minoru Boulevard.

The question on the motion was then called, and it was **CARRIED**.

3. **FOLLOW-UP REPORT ON TRANSLINK'S 2002 MAJOR ROADNETWORK (MRN) MINOR CAPITAL IMPROVEMENT PROGRAM**

(Report: May 22/02, File No.: 6500-01) (REDMS No. 714304)

Mr. Wei briefly reviewed the report with the Committee.

(Mayor Brodie entered the meeting at 4:07 p.m.)

A brief discussion ensued among Committee members and staff on the proposal, during which in response to questions, advice was given that there would be sufficient funds available to complete other projects which were not part of the Major Road Network Minor Capital Improvement Program.

Reference was made to the proposed construction of a bicycle lane on No. 8 Road and a discussion ensued on whether cyclists would have access to No. 8 Road now that that road was being closed to traffic. Mr. Wei stated that although the road was being closed to general traffic, it was quite likely that cyclists could still have access. He also confirmed that two of the projects, "Westminster Highway Eastbound Left-Turn Lane (between No. 8 Road and Nelson Road)" and "Steveston Highway/No. 5 Road Intersection Improvement (northbound to eastbound right-turn lane), would each be fully funded by the respective developers.

It was moved and seconded

*That the various proposed road and traffic improvements in Richmond, (as presented in the report dated May 22<sup>nd</sup>, 2002, from the Director, Transportation), be endorsed for 50/50 cost-sharing between the City and TransLink as part of the TransLink 2002 Major Road Network Minor Capital Improvement Program.*

**CARRIED**

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## ENGINEERING & PUBLIC WORKS DIVISION

### 4. WATERFRONT IMPROVEMENTS AT NO. 1 ROAD SOUTH DRAINAGE PUMP STATION

(Report: May 21/02, File No.: 6340-20-P.02303) (REDMS No. 722024)

It was moved and seconded

*That up to \$100,000 be allocated from the 2002 Waterfront Improvement Program capital project for waterfront upgrades to the No. 1 Road south drainage pump station.*

Prior to the question on the motion being called, in response to questions, advice was given by the Manager, Engineering Design & Construction, Robert Gonzalez, that:

- the intention was to construct a two tiered platform on the roof of the pump station
- transparent glass was being proposed for two of the walls rather than concrete or brick, because in the event of vandalism occurring, the type of glass being proposed could be cleaned more easily than concrete or brick
- the transparent walls would allow the public to view the generator inside the pump station, as well as providing those people walking along the dyke with a view of the waterfront
- because of the custom work involved to complete the tiered platform, only the pump station structure would be completed prior to the Tall Ships event
- consideration of the possible incorporation of a public art project at the site would be delayed until the completion of the building design and would not be implemented until after the Tall Ships event
- the trees proposed for planting in the area of the pump station would be Japanese Cherry in consultation with the BC Wakayama Kenjin Kai.

During the discussion, staff were encouraged to find other projects which would benefit from the type of construction now being proposed.

The question on the motion was then called, and it was **CARRIED**.

At the request of the Chair, the Acting Director, Public Works, Dave Semple, provided information to the Committee on the status of the 2002 Spring Freshet. A copy of this memorandum is attached as Schedule A and forms part of these minutes.

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## 5. LEVELS OF SERVICE - 2002

(Report: May 9/02, File No.: 0340-20-PWOR1) (REDMS No. 692960)

The General Manager, Community Safety, Chuck Gale, (representing the General Manager, Engineering & Public Works, Jeff Day), advised that staff were present today to respond to any questions which the Committee might have on the service levels now being provided. He stated that for those areas which the Committee would like to have explored in greater detail, staff would like to have the opportunity to report to the Committee on the implications of any proposed changes.

The Manager, Water Services, Steve McClurg, then reviewed the 2002 budget and services levels for the Water Services Department, during which he responded to questions from Committee on a number of issues.

The Manager, Sewerage & Drainage, Jim Young, reviewed the 2002 budget and services levels for the Sewerage & Drainage Department, during which he also responded to questions from Committee on a number of issues. A copy of the PowerPoint presentation made by Mr. McClurg and Mr. Young is attached as Schedule B and forms part of these minutes.

As a result of the discussion which took place during the PowerPoint presentation, staff were requested to provide information to the Committee on:

- the feasibility of charging private land owners for cleaning of perimeter drains and other services currently provided by the City free of charge
- the feasibility of extending the cleaning time for ditches from 5 years to 6 years, the impact which this could have on ditch hydraulics and stability (the report is to identify those ditches which serve agricultural areas);
- the feasibility of incorporating the Storm Sewer section into the Utilities Budget as a means of applying for increased infrastructure funding
- alternative structures for drainage other than closed box culverts
- the control of grease discharged by restaurants through the City's drainage system, (report should review the bylaw adopted by the GVRD); whether the Plumbing Code could be used to deal with this issue
- new regulations for low flush toilets, and options which would be available if these regulations could not be applied in Richmond
- the installation of water metres in the City, and the cost benefits resulting from this installation.

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Staff were also requested to provide double-sided copies of the PowerPoint presentation to the Committee, and to include in future Public Works & Transportation Committee agendas, a status sheet on the items listed above, including recommendations and the strategy used to reach the recommended solution. Advice was also given that a report:

- on the Infrastructure Replacement Strategy would be presented to Committee in 2003 to address the master infrastructure plan
- would soon be presented to the Finance Select Committee on recommended values for capital reserve accounts; and
- should be presented to the Committee in July for funding dyke and drainage works.

## 6. MANAGER'S REPORT

The Director, Engineering, Steve Ono, extended an invitation to Committee members to attend the upcoming Enviro Fair to be held Saturday, June 8<sup>th</sup>, 2002, hosted by the Environmental Sustainability Committee as part of the City-wide celebrations for "Environment Week".

## ADJOURNMENT

It was moved and seconded  
*That the meeting adjourn (5:55 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Public Works & Transportation Committee of the Council of the City of Richmond held on Wednesday, June 5<sup>th</sup>, 2002.

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Councillor Lyn Greenhill  
Chair

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Fran J. Ashton  
Executive Assistant



**City of Richmond**  
Administration, Engineering & Public Works

**To:** Mayor and Councillors  
**From:** Dave Semple  
Acting Director Public Works

**Date:** June 5, 2002  
**File:** 0005-01

**Re:** 2002 Spring Freshet Information Update

A review of the 2002 river and snowpack conditions related to the annual freshet indicates a higher than normal snowpack and rising water levels within the Fraser basin. This is because of the delayed melt due to cool weather conditions, not of increasing snowpacks. In a normal year significant melt would already have occurred at this time. Most regions through the Interior are one to three weeks late in onset of melt of the higher elevation of snow, with the North and South Thompson as well as some of the Columbia Kootenay Snow Pillows still showing slight accumulation. The following information is provided by the BC Ministry of the Environment, Lands and Parks.

**North and South Thompson**

The Thompson basin snowpack has been slow to melt in the month of May due to cool weather conditions. We therefore have a higher than normal accumulation of snow and the regional runoff as represented by the flow in the Thompson River at Spences Bridge was slightly below normal during the last two weeks of May.

**Upper Fraser and Nechako**

Due to the cool weather conditions, the snowpack accumulation in the Upper Fraser and Nechako region is higher than normal due to the delay in snowmelt. Regional runoff as indicated by flow in the Fraser River in this region was slightly below normal during the month of May.

**Middle and Lower Fraser**

The absence of any prolonged warm spell during early May has delayed the snowmelt, therefore, slightly higher than normal accumulations have occurred. As a result, the flow of the Fraser River at Hope has been slightly below normal.

It is still too early to predict peak flows which the various locations will experience. This will depend on the weather patterns over the next two months. The weather has started to warm up a little so things will start to change. The later the significant melt of the high elevation snow is delayed, the greater the probability of an extended period of hot summer weather, which can result in very high flows.

We will be running into higher tides through the month of June so our Staff will continue to monitor the Spring Runoff Report information and keep Council advised of the river conditions.

Dave Semple  
Acting Director Public Works

DCS:smj

pc: Jeff Day, General Manager Engineering and Public Works

# Engineering & Public Works

## Water Services

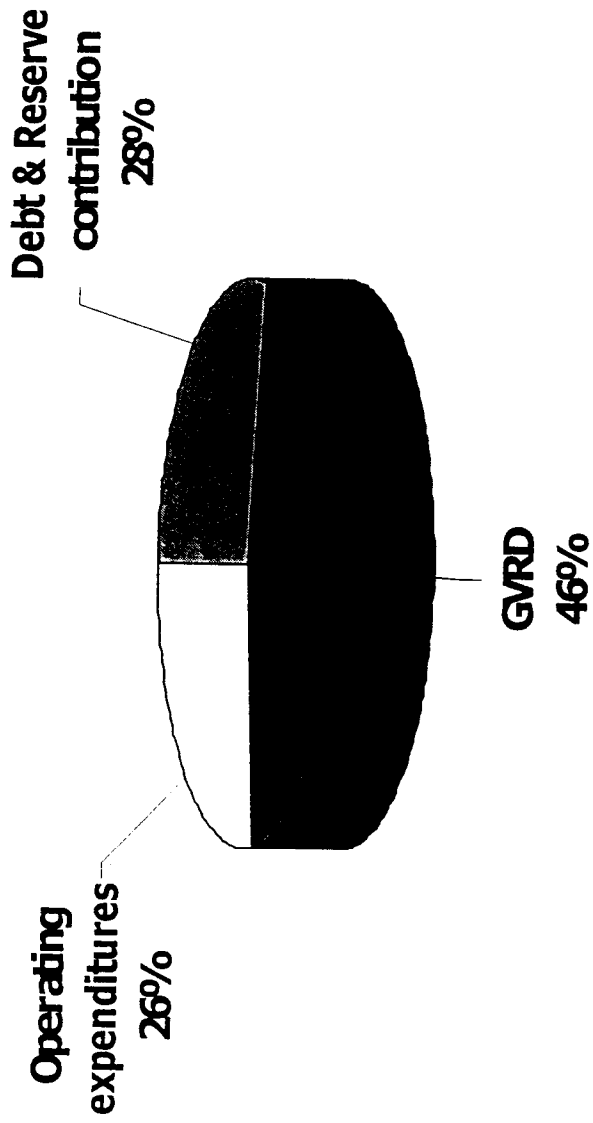
2002

Budget and Service Levels

SCHEDULE B TO THE MINUTES OF  
THE PUBLIC WORKS &  
TRANSPORTATION COMMITTEE  
MEETING HELD ON WEDNESDAY,  
JUNE 5<sup>TH</sup>, 2002.

# Total Water Services

\$19,002,300





# Water Services

## Overview of Services Performed

<b>Maintenance of:</b>	<b>Quantity</b>	<b>Budget</b>
PRV Stations	13	\$ 107,200
Watermains	629 km	\$ 1,309,900
Valves	9335	\$ 355,100
Connections	61167	\$ 920,100
Fire Hydrants	4122	\$ 838,400
Meters	4766	\$ 601,300
Other	n/a	\$ 325,000

# PRV Stations

\$107,200

- Maintain the water systems operational pressure at 95 psi
- Repair on demand - emergency response within one hour
- Each inspected 3 times per week
- Monitored by the City SCADA system

# Watermains

**\$1,309,900**

- Repair approximately 52 water main breaks on demand - emergency response within one hour
- Control corrosion of the water mains with a cathodic protection system
- Flush complete system once per year
- Operate all valves and flow test all fire hydrants once per year
- Flush mains on demand - emergency response within one hour; non-emergency within 48 hours
- Maintain inventories and mapping system for operations in Hansen

# Valve Maintenance

\$355,100

- Service and clean all chambers on a 3 year cycle
- Repair approximately 40 valves per year on demand - emergency response within one hour; non-emergency within 48 hours
- Exercise once per year and paint on a 4 year cycle
- Rebuild approximately 50 valves per year

# Water Connections

\$920,100

- Locate water service boxes by section
- Repair approximately 274 breaks per year on demand – emergency response within one hour
- Respond to approximately 1500 customer service calls per year
- Disconnect any unused water services due to development

# Fire Hydrants

\$ 838,400

- Relocate an average of 2 per year
- Test and service each once per year and after every use
- Repair approximately 40 per year on demand - emergency within one hour; non-emergency within one week
- Paint each once every 4 years
- Service, repair and certify backflow devices once per year or on demand

# Water Meters

\$601,300

- Read meters once per quarter for billing
- Repair and replace approximately 1560 per year on demand - emergency within one hour; non-emergency within one week
- Maintenance of 6 system backflow devices
- Test and calibrate 132 large meters annually
- Supply approximately 100 meters per year for residential housing requirements

# Other Work Programs     \$325,000

- Repair vehicles not covered by Fleet
- Water Sampling – regulated @ 28 per week, & on demand - average response within one hour
- Connection renewal – approximately 49 per year
- Maintain blow downs to ensure the system is not contaminated
- Install approximately 14 new valves per year at key points
- Maintain shoring & barricade equipment
- Pave low cuts that settle on an as need basis per history
- Manufacture specialized water parts



# Engineering & Public Works

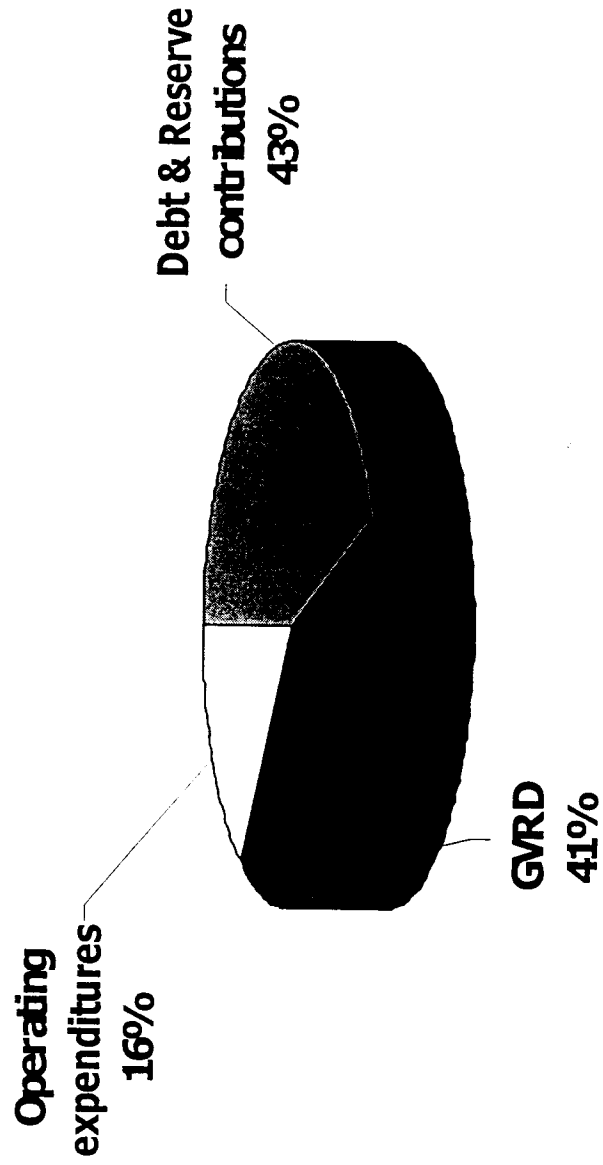
## Sanitary Sewer

2002

Budget and Service Levels

# Total Sanitary Sewer

\$18,220,000



# Sanitary Sewer

## Overview of Services Performed

<b>Program</b>	<b>Quantity</b>	<b>Budget</b>
Sanitary Foremain & Pump Station	141 stns 24 valves	\$ 632,105
Inspection & Repair	74km	
Pump Station maint.	141	\$ 833,595
Manholes	7512	\$ 219,400
Inspection Chambers	16894	\$ 369,200
Mainlines	482 km	\$ 413,000

# Sanitary Sewer Forcemain & Pump Station Repair

\$ 632,105

- Install 2 new valves per year
- Maintain 24 existing valves
- Maintain 10 shoring cages per year on demand
- Video inspection of approximately 2 catchment areas per year
- Maintenance of specialized equipment
- Approximately 1100 reactive repairs per year

# Sanitary Sewer Pump Station Maintenance \$ 833,595

- Raise all pumps and inspect all stations annually
- Clean every station once every 2 weeks
- Planned repairs as determined by inspections

# Sanitary Sewer Manholes

\$ 219,400

- Inspect approximately 750 per year
- Repair approximately 100 per year on demand - average response within one hour
- Raise or lower approximately 75 per year on demand - average response within one hour
- Clean approximately 820 per year

# Sanitary Sewer Inspection Chambers \$ 369,200

- Locate & inspect approximately 1700 per year
- Repair approximately 550 per year on demand - average response within one hour
- Raise approximately 180 per year on demand - average response within one hour
- Clean approximately 5 per year on demand - average response within one hour
- Clear approximately 16 blockages per year on demand - average response within one hour

# Sanitary Sewer Mainlines

\$ 413,000

- Repair approximately 15 mainline breaks per year on demand - average response within 24 hours
- Flush approximately 115 km per year on an 18 month cycle
- Clear approximately 20 blockages per year on demand - average response within one hour
- Repair approximately 26 minor incidences per year on demand - average response within one hour
- Rod approximately 4.3 km per year on demand - average response within one hour



# Engineering & Public Works

## Storm Sewer

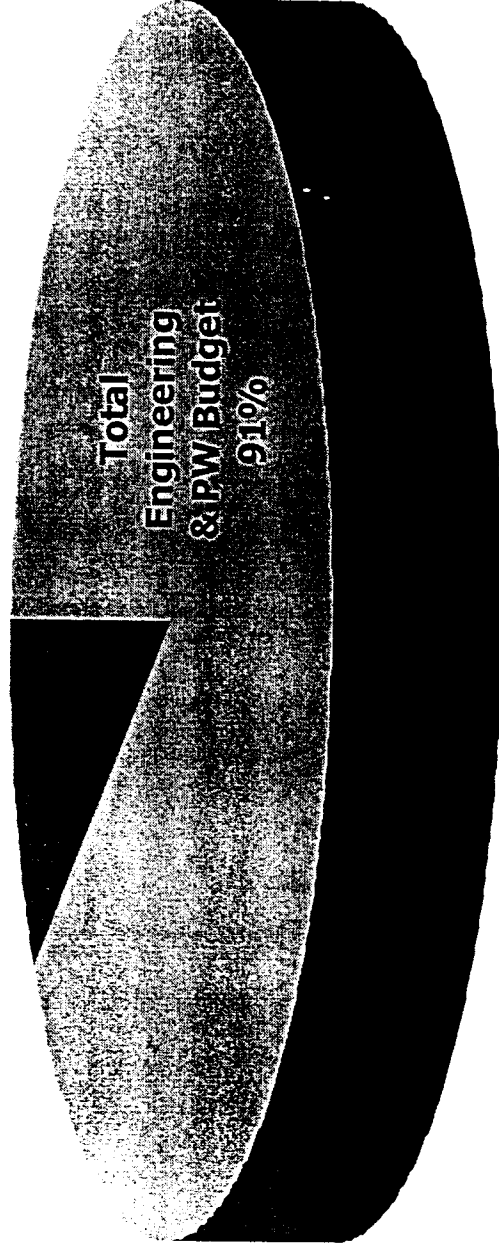
2002

Budget and Service Levels

# Storm Sewer Budget

\$ 2,259,100

Total Storm  
Sewer  
Budget  
9%



# Storm Sewer

## Overview of Services Performed

<b>Program</b>	<b>Quantity</b>	<b>Budget</b>
Manholes	7630	\$ 67,100
Inspection Chambers	23689	\$ 177,500
Mainlines	576 km	\$ 140,500
Catch Basins	9278	\$ 114,200
Ditches and Canals	320 km	\$ 497,500
Pump Stations	40	\$ 706,800
Other	n/a	\$ 172,300

# Storm Sewer Manholes

**\$67,100**

- Inspect approximately 7600 manholes on a 12 year cycle
- Repair approximately 260 per year on demand - 24 hour average response time
- Flush and remove approximately 30 blockages per year - 2 hour average response time
- Repair, replace, clean approximately 20 connections per year - 2 hour average response time
- Raise and lower approximately 20 per year on demand - 24 hour average response time

# Storm Sewer Inspection Chambers

\$ 177,500

- Inspect approximately 2000 per year on a 12 year cycle
- Repair approximately 500 chambers per year - 24 hour average response time
- Flush and clean all chambers on a 12 year cycle
- Remove approximately 150 blockages per year - 2 hour average response time
- Raise and lower approximately 18 per year on demand - 24 hour average response time
- Perimeter drains inspected and flushed on demand - 2 hour average response time

# Storm Sewer Mainlines

**\$ 140,500**

- Repair approximately 15 times per year on demand - 3 day average response time
- Remove approximately 15 blockages per year - 2 hour average response time
- Flush approximately 50 km of pipe per year
- Repair approximately 2 box culverts per year - 24 hour average response time
- Locate and inspect on demand approximately 5 times per year
- Repair or replace approximately 6 connections per year - 24 hour average response time

# Storm Sewer Catch Basins

**\$ 114,200**

- Repair approximately 12 per year on demand - 2 hour average response time
- Flush and remove blockages approximately 30 per year - 2 hour average response time
- Raise and lower approximately 6 per year on demand - 2 hour average response time
- Inspect perimeter drains
- Install approximately 3 new catch basins annually

# Storm Sewer Ditches & Canals

\$497,500

- Clean approximately 60 km per year on a five year cycle
- Clean approximately 90 screens weekly
- Remove approximately 8 beaver dams per year – 3 day average response time
- Flail mow 28 areas annually
- Prune approximately 8 trees per year – 3 day average response time
- Flush approximately 30 culverts and bridges per year – 3 day average response time



# Ditches and Canals      continued

- Rebuild approximately 30 bulkheads and ditch ends per year – 3 day average response time
- Inspect approximately 80 per year on demand - 24 hour average response time
- Support and stabilize ditch and canal walls – 3 day average response time
- Monitor water levels – 2 hour average response time

# Storm Sewer Pump Stations

\$ 706,800

- Raise all pumps and inspect 40 stations annually
- Inspect and clean as required
- Repair on demand - as determined by inspections