

ANNUAL REPORT OF THE ENGINEERING AND PUBLIC WORKS DEPARTMENT

1974



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TO HIS WORSHIP THE MAYOR & COUNCILLORS
OF THE CITY OF FREDERICTON

Madam and Gentlemen:

I submit herewith this report which is a statement of work done in the various City Departments under the direct supervision of the City Engineer.

This report covers the period January 1, 1974 to December 31, 1974 and is written for the purpose of maintaining an accurate record on file of the activities and costs of the various departments.

During the year along with regular maintenance, City crews and contractors constructed the following works:

Concrete Curb & Gutter	3.21	Miles
Concrete Sidewalk	1.17	Miles
New Street Construction	1.86	Miles
New Pavement	2.23	Miles
Recap (1/2" Minus)	1.13	Miles
Sealing City Streets (3/8" Minus)	7.04	Miles
Slurry Sealed City Streets	3.86	Miles
Armour Coated City Streets	5.98	Miles
Chip Sealed City Streets	2.94	Miles
6" Force Main - Domestic Sewer	-	Miles
8"-10"-12"-16" Gravity Domestic Sewer .	2.12	Miles
10"-12"-15"-18"-24"-30"-36"-42"-60"-		
Storm Sewer .	3.06	Miles
4"-6"-8"-10"-12" Water Mains	2.66	Miles
Grading & Gravelling	12.95	Miles

ALSO 218 Water Services Installed
 209 Domestic Sewer Services Installed
 9 Sprinklers Installed
 26 Services Relayed (Water)
 1 Services Relayed (Domestic Sewer)
 592 Water Meters Installed

Contractors under contract with the Public Works Department of the City of Fredericton in 1974 constructed, completed construction or began construction on the following projects:

Fredericton Housing & Construction Ltd.

- To the construction of the Flemming Road Booster Station.

John Kilburn & Sons Ltd.

- To installation of services on Mansfield Street.

Consolidated Engines &
Machinery Co. Ltd.

- To supply and installation of pumping equipment for Flemming Road Booster Station.

Fredericton Housing & Construction Ltd.

- To installation of services on Neville Street.

Fredericton Housing & Construction Ltd.

- To installation of services on Whiting Road.



Fredericton Housing & Construction Ltd.	-	To installation of services on Wetmore Road, Chandler Drive, Bliss Street, Doyle Court and Colebrook Court in Southwood Park.
E. J. Ludford Construction	-	To installation of services on Greenfields Drive (Contract incomplete in 1974).
Industrial Systems Ltd.	-	To supply and installation of pumping equipment for Montgomery Street Booster Station.
Gorman Construction Co. Ltd.	-	To supply and placement of asphalt.
Gordon's Ready-Mix Ltd.	-	To supply and delivery of Ready-Mix Concrete.
Harry Smith	-	To supply and delivery of top-soil.
Forbes & Sloat Ltd.	-	To supply and delivery of gravel.
Gulf Oil Canada Ltd.	-	To supply and delivery of gasoline and diesel fuel.
Diamond Construction (1961) Ltd.	-	To supply and delivery of crushed gravel.
Windsor Salt Company	-	To supply and delivery of Highway Coarse Bulk Salt.
John Kilburn & Sons Ltd.	-	To installation of water main on Gibson Street.
John Kilburn & Sons Ltd.	-	To installation of services on Douglas Avenue - South end to Maple Street. Fulton Avenue - Maple Street to end of Street (North).
John Kilburn & Sons Ltd.	-	To installation of services on Maple Street and Preston Drive.
Canada Gunite Co. Ltd.	-	To construction of Marysville Reservoir.
Rise and Shine Construction	-	To supply and installation of pumping equipment & construction of Well House at Maple Street & Fulton Avenue Intersection.
Flintkote Company of Canada Ltd.	-	To supply and placement of Chip Seal, Armour Coat, and Slurry Seal.
Douglas Kelly	-	To supply and delivery of Winter Sand.

Wendall Thomas	-	To supply and delivery of Winter Sand.
M. E. Phillips & Son Ltd.	-	To construction of Aerated Lagoon - Lincoln.
C. W. Guthrie & Son	-	To supply and delivery of Cover Material to Sanitary Landfill.
Shell Oil Company	-	To supply and delivery of Furnace Oil.
Imperial Oil Ltd.	-	To supply and delivery of Furnace Oil.

The current expenditures for the twelve-month period January 1, 1974 to December 31, 1974 appear as follows:

	Appropriation	Net Expenditures	Debit	Credit
Common Services	\$ 325,159	\$ 453,311.02	\$128,152.02	\$ -
Road Transport(Adm.)	13,050	13,594.57	544.57	-
Snow & Ice Removal	379,850	260,988.64	-	118,861.36
Roads & Streets	244,325	477,970.57	233,645.57	-
Sidewalk Repairs	14,940	5,521.32	-	9,418.68
Street Lighting	180,000	146,664.89	-	33,335.11
Culverts & Ditches	5,310	53,799.45	48,489.45	-
Traffic Services &				
Off-Street Parking	7,260	11,927.64	4,667.66	-
Storm Sewer	28,600	24,677.64	-	3,922.36
Garbage Collection	209,016	210,082.10	1,066.10	-
Garbage Disposal	81,540	90,258.37	8,718.37	-
Street Cleaning	129,500	120,853.23	-	8,646.77
Old Burial Ground	4,195	3,656.07	-	538.93
Loyalist Burial Grd.	155	109.16	-	45.84
Community Development	10,000	-	-	10,000.00
Wilmot Park	11,330	9,976.49	-	1,353.51
Odell Park	16,430	14,720.25	-	1,709.75
Carleton Park	7,600	6,231.56	-	1,368.44
Other Parks	8,000	2,277.62	-	5,722.38
Dev. of Park Areas	6,165	2,487.68	-	3,677.32
Public Works	74,900	60,342.00	-	14,558.00
TOTALS	\$1,757,325.00	\$1,969,450.29	\$425,283.74	\$213,158.45

Therefore, an Overall Debit of \$212,125.29.

On July 9, 1973, amalgamation took place between the former City of Fredericton and surrounding areas. The amalgamated City occupies a total of some 51 Square Miles with a population of 44,311.

Following is a table giving total mileages of municipal roads and streets, provincial routes, and by-passes divided with respect to the types of surface on the various streets.

LOCATION	MUNICIPAL RDS. & STS.				DESIGNATED ROUTES			T.C.H. & BY- PASSES
	Total	Asphalt	Chip Seal	Gravel	Total	Asphalt	Gravel	
F'ton South	57.276	49.468	2.340	5.468	13.994	12.448	1.546	8.895
F'ton North	11.599	10.149	0.246	1.204	4.057	4.057	-	-
Nashwaaksis	24.132	2.252	17.639	4.241	5.077	5.077	-	-
Marysville	12.204	7.008	3.757	1.439	4.805	4.805	-	2.150
Barker's Pt.	4.317	0.366	3.485	0.466	2.751	2.751	-	-
Silverwood	2.688	1.048	1.064	0.576	-	-	-	1.713
Garden Creek	8.943	2.990	2.735	3.218	3.875	3.875	-	5.450
Douglas	3.011	-	2.134	0.877	1.587	1.587	-	-
Lincoln	2.043	-	1.809	0.234	0.836	0.836	-	-
Lr.St.Marys	1.357	-	0.607	0.750	-	-	-	-
Killarney Rd.	0.206	0.206	-	-	2.629	2.629	-	-
TOTALS	127.776	73.487	35.816	18.473	39.611	38.065	1.546	18.208

TOTAL MILEAGE (MUNICIPAL AND DESIGNATED ROUTES) = 167.387

Following in the body of this report is a detailed statement of the work done, comparative expenditures and unit costs under the various departments. The detailed report of any particular department may be found by referring to the index.

Respectfully submitted,



CITY ENGINEER.

TOTAL YEARLY EXPENDITURE

The total yearly net expenditure under the direct supervision of the City Engineer in 1974 amounted to \$4,675,510.06.

A graphic comparison of expenditures for labor, labor and hired machinery and total expenditure (including labor and hired machinery) are shown on the following graph.

The locations of new construction completed or commenced in 1974 are shown on maps inserted after Page 5 of this report.

Following the maps is a graph showing the distribution of the City of Fredericton Tax Dollar in 1974.

TRANSPORTATION SERVICES

The expenditure under this heading is subdivided under five main headings:

- (1) Common Services
- (2) Road Transport
- (3) Roads & Streets
- (4) Street Lighting
- (5) Traffic Services

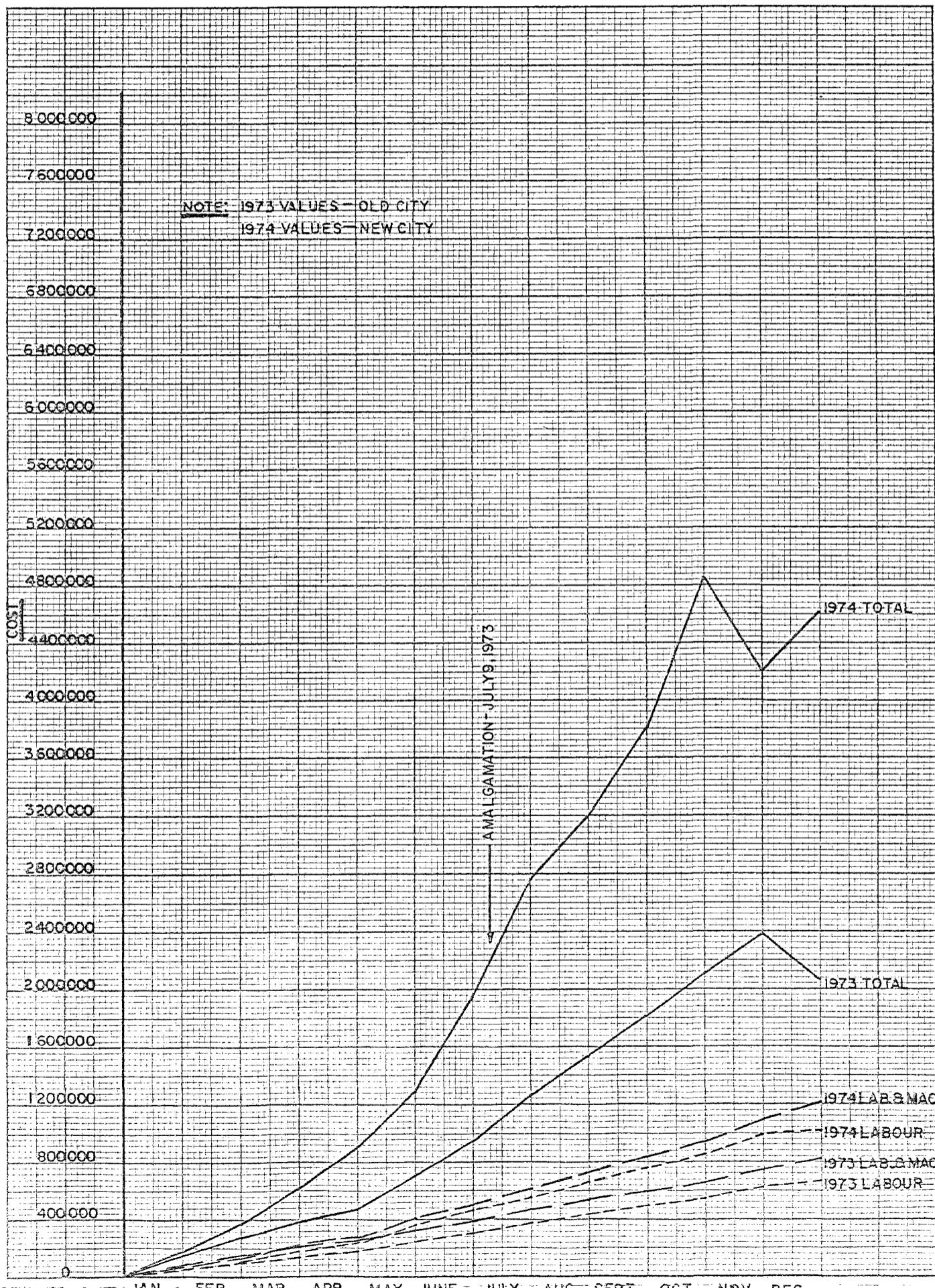
(1) COMMON SERVICES: The total net expenditure under this heading was \$453,311.02 and is made up as follows:

GROSS EXPENDITURE:

Administration	\$ 14,539.72
Engineering Services	75,982.11
General Equipment (Fuels, lubricants), Maintenance & Repairs, etc.; Small tools & Equipment; Purchasing Eqp.)	223,448.82
Workshop, Yard & other Bldgs.....	49,012.68
Research Planning & Design	2,744.31
Other (Pensions, U.I.C., Work- men's Compensation, Supplementary Benefits)	<u>158,690.25</u>
 TOTAL	\$ 524,417.89

LESS CREDITS:

Atlantic Fire & Safety (Invoice Correction)	\$ 381.55
Unemployment Insurance Comm.	105.60
Journal Vouchers (Salaries)	3,603.03
Gulf Canada (Credit on Drums)	49.94
Journal Vouchers (Gas, Oil, Diesel Fuel, Varsol, Anti-Freeze)	8,252.34
Journal Voucher (Fuels-City Yard)..	3,733.60
Journal Voucher (Space Rental- City Yard)	8,600.00



DISTRIBUTION OF THE 1974 CITY TAX DOLLAR

PROTECTION (FIRE-POLICE-STREET LIGHTS)

DEBT CHARGES

PUBLIC WORKS

RECREATION AND COMMUNITY SERVICES

GENERAL GOVERNMENT

SANITATION AND WASTE REMOVAL

MISCELLANEOUS

0 10 20 30 40 50

PERCENTAGE

Journal Voucher (Fuels-Maintenance Depot)	\$ 4,831.00
Journal Voucher (Space Rental-Maintenance Depot)	200.00
Journal Voucher (Fuels-Marysville Works Building)	572.45
Journal Voucher (Fuels-Nashwaaksis Works Building)	44.00
Journal Voucher (City Pension-Inter.Dept. Charges)	27,368.60
City Pension (W.L.B.Salary)	1,225.71
Journal Voucher (Canada Pension-Inter.Dept. Charges)	12,084.63
Canada Pension (W.L.B.Salary)	33.92
Miscellaneous	<u>20.50</u>
 TOTAL	<u>\$ 71,106.87</u>
 NET EXPENDITURE	<u>\$453,311.02</u>

(2) ROAD TRANSPORT: The total net expenditure under this heading was \$13,594.47 for administration costs.

(3) ROADS & STREETS:

GROSS EXPENDITURE	\$1,133,227.09
LESS CREDITS	<u>30,823.69</u>
NET EXPENDITURE	<u>\$1,102,403.40</u>

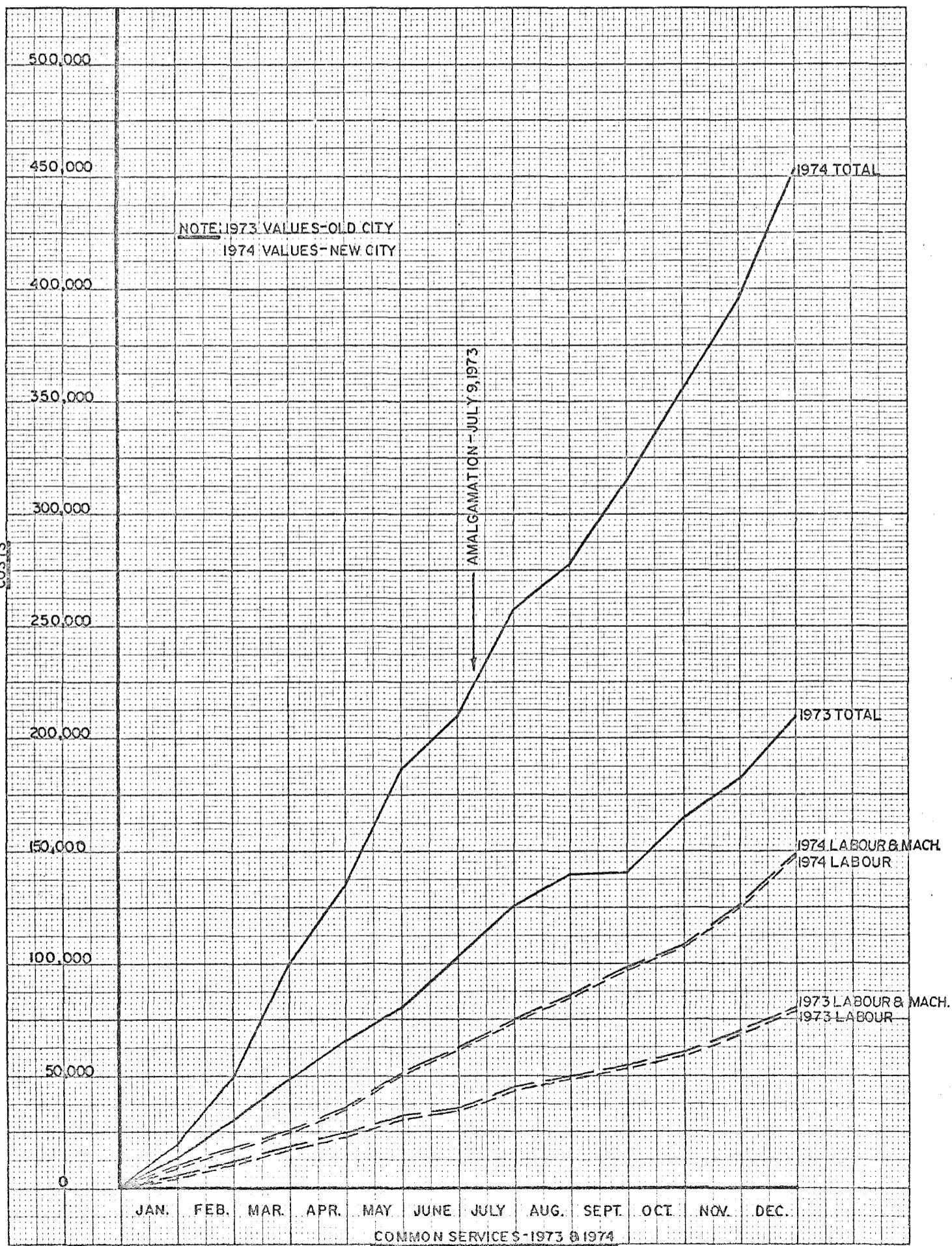
The above credit of \$30,823.69 is made up of labour, and material charged to private parties, materials such as gas, oil, etc., used by other City Departments, and materials such as sand, salt, rock dust, etc. to other City Departments.

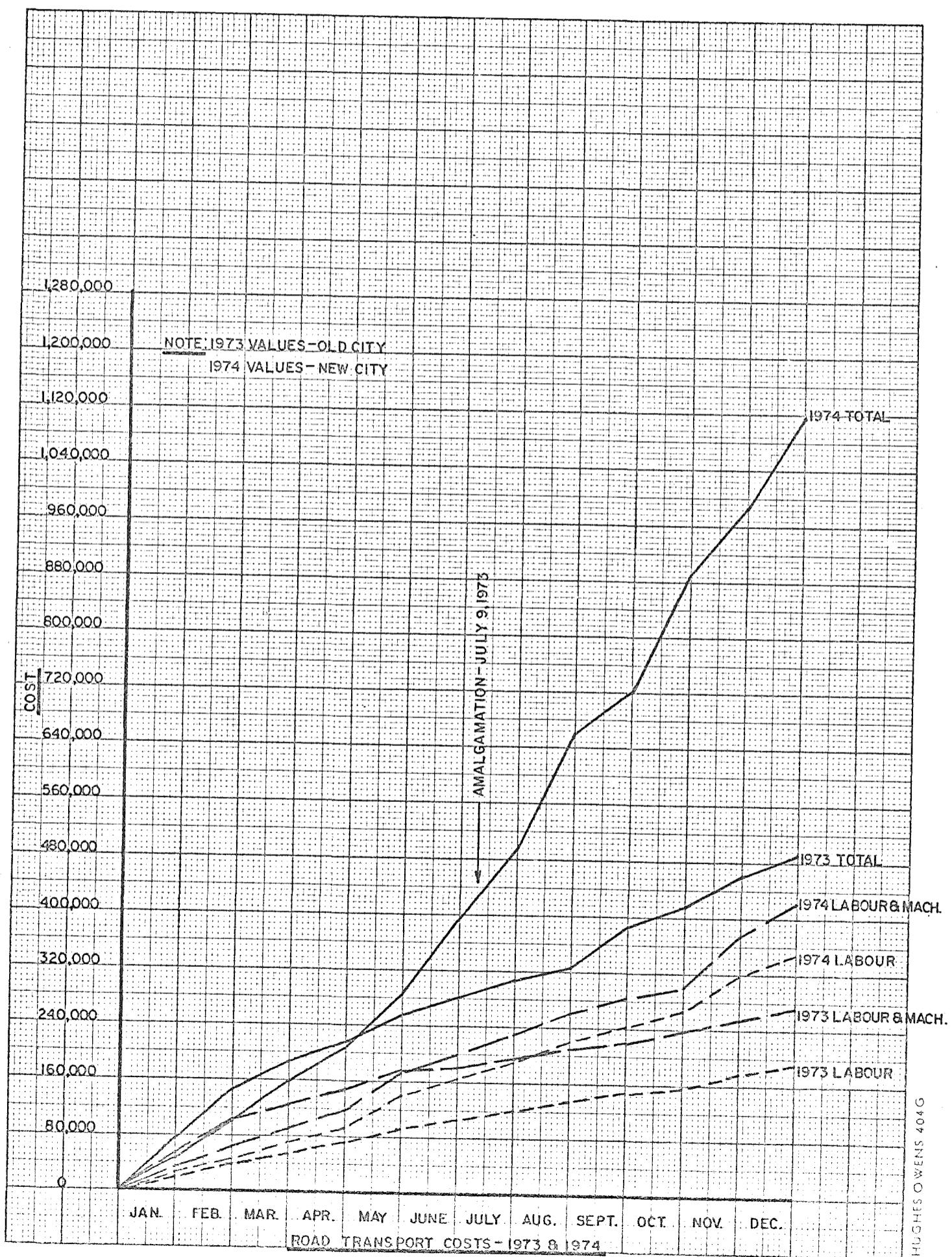
The GROSS EXPENDITURE is divided as follows:

Labor - the total of Roads & Streets Payrolls	\$ 331,794.81
Hired Trucks & Machinery	73,472.23
Material Charges: which includes Workmen's Compensation; Unemployment Insurance and all materials including purchase and repairs to City owned equipment	<u>727,960.05</u>
 TOTAL	\$1,133,227.09

The NET EXPENDITURE of \$1,102,403.40 is divided into the following items. These items give an account of the amount and kind of work done by the Roads and Streets Department.

- (a) Roadway Surfaces (Maintenance)
- (b) Sidewalks (Maintenance)
- (c) Drainage Ditches, Culverts, Etc.
- (d) Storm Sewers
- (e) Street Cleaning & Flushing
- (f) Snow & Ice Removal





(a) ROADWAY SURFACES (Maintenance)

(1) Gravel Roads, Chip Seal and Armour Coat

City Motor Grader: Road Patrol

Forbes & Sloat	\$ 200.00
Operators Wages	4,046.51
Machinery Charges	<u>4,344.00</u>
	\$ 8,590.51

LESS CREDITS:

Grading Privately Owned Business Yards and Apartment Building Yards	\$ 99.36
TOTAL	<u>\$ 8,491.15</u>

Grading and Gravelling:

Grading and application of Gravel on City Roads and Streets.

Labor	\$ 8,957.86
Hired Trucks & Machinery	3,590.50
City Machinery Charges	8,274.00
Materials (Crushed Rock, Class "A" Gravel, Dust)	<u>108,970.42</u>
TOTAL	\$ 129,792.78

LESS CREDIT:

N.B. Power (Upgrading Gilbert Street)	\$ 2,862.29
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NET EXPENDITURE \$ 126,930.49

42,614.30 Tons of Class "A" Crushed Gravel was used in the maintenance and repairs to Gravel Roads under Roadway Surfaces.

The gravel was purchased from Diamond Construction and Forbes & Sloat Ltd.

526.75 Tons of Dust was purchased from Diamond Construction at prices of \$2.80 and \$3.60 per ton.

Rural Roads (Unserviced):

All work done other than that done by the Motor Grader.

GROSS EXPENDITURE \$ 8,178.44

LESS CREDIT 76.72

NET EXPENDITURE \$ 8,101.72

The above correction was for an incorrect charge against labour costs.

Chip Seal & Armour Coat:

In 1974 Flintkote Company of Canada Ltd. was contracted to Chip Seal and Armour Coat various City Streets.

The above heading includes the following:

- 1). Chip Seal - 3/8" Chips
- 2). Armour Coat - 3/4" - 1/2" - 3/8" Chips

1). Chip Seal - 3/8" Chips:

Under this heading the following Roads and Streets were resurfaced with 3/8" Chips:

<u>LOCATION</u>	<u>LINEAL FEET</u>
Wilsey Rd. - Duak Rd. to Vanier Hwy.	1,500
Vanier Hwy. Service Road	<u>2,000</u>
TOTAL	3,500

3,500 Lineal Feet = 0.663 Miles

2). Armour Coat (3/4"-1/2"-3/8" Chips):

Under this heading the following Roads and Streets were resurfaced with 3/4"-1/2" and 3/8" Chips:

<u>LOCATION</u>	<u>LINEAL FEET</u>
Rainsford Lane Park	3,300
Springhill Rd.-T.C.H. to Sloat Trailer	
Park Entrance	5,200
Montieth Street	2,400
Mayflower Court	600
Tulip Street	600
Lily Street	600
Mooer's Drive	800
Parkside Dr.-Meadow Green Ct. to and	
including Greenfields Court	1,200
McLeod Hill Road	5,200
Primrose Avenue	700
Lombardi Lane	700
Dahlia Drive	700
William Street	700
Diamond Street	1,890
Gilbert St.-Canada St. to N.B.E.P.C.	
Entrance past C.N.R. Tracks	1,700
Millar Street	300
LaPointe Court	700
Hollybrook Street	400
Cowperthwaite Street	300
Tower Road	600
Daulphin Street	300
Clayton Street	600
Manzer Street	600
Jarvis Street	300
Hossack Street	600

<u>LOCATION</u>	<u>LINEAL FEET</u>
Leslie Street	300
Mack Road	<u>300</u>
TOTAL	31,590

31,590 Lineal Feet = 5.98 Miles

Materials Used:

89,500 Gallons N.B. Prime	
@ \$0.55 Per Gallon	\$ 49,225.00
2,012.20 Tons 3/4" Chips	
@ \$7.50 Per Ton	15,091.50
2,583.76 Tons 1/2" Chips	
@ \$8.50 Per Ton	21,961.96
55.50 Tons 3/8" Chips	
@ \$9.05 Per Ton	502.28
109,350 Gallons Colas	
@ \$0.56 Per Gallon	<u>61,236.00</u>
TOTAL	\$148,016.74

LESS CREDIT:

N.B. Power - Upgrading Gilbert St.....	<u>5,876.67</u>
THEREFORE, COST OF MATERIALS..	<u>\$ 142,140.07</u>

The street preparatory work, other than the laying in place was done by regular City Crews at an expenditure of \$7,853.55 and was made up as follows:

City Labor	\$ 3,601.30
Hired Machinery	836.25
City Machinery	<u>3,416.00</u>
TOTAL	<u>\$ 7,853.55</u>

TOTAL NET EXPENDITURE FOR CHIP SEAL & ARMOUR COAT... \$154,771.00

(2) Paved Streets

Patching and repairing pavement, applying seal coat, light tar or asphalt to pavement.

Labor	\$ 48,410.27
Hired Trucks & Machinery	4,604.55
City Machinery	17,436.50
Materials	<u>68,547.14</u>
TOTAL	<u>\$ 138,998.14</u>

When local contractors have a plant set-up, patching materials can be obtained more economically. Patching material when available was obtained from Gorman Construction, Flintkote Company of Canada Ltd. & Diamond Construction.

The total net expenditure for Pavement Repairs for 1974 under the above heading, including Workmen's Compensation, Pension Fund, Holiday and Sick Leave amounted to \$135,253.09 and was computed as follows:

Asphalt: Stock From 1973

13 Barrels (RS1 and RS2)....	\$ 273.85
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Plus Stock Purchased in 1974

10 Barrels MC2	310.58
4500 Gallons RS1	2,428.20
1620 Gallons RC-800	<u>709.56</u>
TOTAL STOCK ...	\$ 3,722.19

LESS STOCK FOR 1974:

720 Gallons RS1	\$ 391.68
1125 Gallons RC-800	<u>492.75</u>
NET COST OF LIQUID	\$ 2,837.76

Expenditures:

Cost of Hot Mix Asphalt	\$ 42,495.56
Liquid Asphalt (includes Winter Asphalt)	8,395.60
Crusher Dust	1,049.42
Crushed Rock	15,715.75
Repairs to Plant Equipment	33.37
City Labour (City Employees, including Pension Fund, Workmen's Compensation, Sick Leave and Holiday Account)	57,124.12
Hired Trucks and Machinery	4,604.55
City Machinery	17,436.50
Miscellaneous (Pick Axes, Water Cans, Etc.)	<u>857.44</u>
GROSS EXPENDITURE	\$ 147,712.31

LESS CREDITS:

Work done and materials used for Private Parties	\$ 7,464.74
Journal Vouchers (Materials used by other City Departments)	<u>4,994.48</u>

NET EXPENDITURE	\$ 135,253.09
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(3) Asphalt Sealing Program

Expenditure	\$ 51,784.32
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Under this heading the following streets were surface sealed with 3/8" Minus Asphalt by Gorman Construction Co. Ltd.

<u>LOCATION</u>	<u>LINEAL FEET</u>
Smythe St.-Edinburgh to Montgomery	2,420
Shamrock Terrace	600
Kings College Rd.-Regent to Windsor	1,200
Tweedsmuir St.-Beaverbrook to Albert	370
King St.-Church St. to Queen St. (Past Cenotaph)	150
Church St.-Brunswick to Charlotte	770
Dundonald St.-York to Regent	1,330
Parkhurst Dr.-Rookwood to Brookmount	600
Haviland St.-Woodstock Rd. to Parkhurst	300
Cliffe St.-Water St. to Hughes St	2,000
Dedham Street	650
Jaffrey St.-Union to St. Marys	750
Pine St. - Union to Dobie St	<u>820</u>
TOTAL	11,960

11,960 Lineal Feet = 2.27 Miles

Following is the expenditure for materials and labour
for the Surface Sealing of the above streets:

Labour	\$ 5,930.80
Hired Machinery	25.50
City Machinery	1,479.50
Materials	<u>44,348.52</u>
TOTAL	<u>\$ 51,784.32</u>

Street preparatory work for Surface Seal was done by
City Crews.

(4) Curb and Gutter Repair

Expenditure \$ 8,197.55

The total expenditure under this heading was made up
as follows:

Labour, Hired Trucks and Machinery	\$ 6,066.01
City Machinery Charges	689.00
Materials	<u>1,442.54</u>
TOTAL	\$ 8,197.55
<u>LESS CREDIT:</u>	<u>768.00</u>
<u>NET EXPENDITURE</u>	<u>\$ 7,429.55</u>

The above credit of \$768.00 was for material and labour
charged to Private Individuals for Curb Repair.

(5) Driveway Entrances (Maintenance)

Expenditure \$ 11,983.02

The total expenditure was made up as follows:

Labour, Hired Trucks & Machinery.	\$ 6,380.34
City Machinery Charges	2,410.00
Materials	<u>3,192.68</u>
TOTAL EXPENDITURE <u>\$ 11,983.02</u>	

(6) Right-of-Ways, Rip-Rap, Mowing, Etc.

Item	Labour, Hired Trucks & Machinery	City Machinery Charges	Materials	Credits	Totals
Erection of Guard Posts	\$ 1,545.16	\$ 369.75	\$ 435.96	\$ 252.10	\$ 2,098.77
Sodding & Seeding	3,898.52	1,228.00	1,588.21	-	6,714.73
Rip-Rapping	2,154.04	742.00	-	-	2,896.04
Mowing	4,726.99	1,503.25	553.25	-	6,783.49
TOTALS	\$12,324.71	\$3,843.00	\$2,577.42	\$252.10	\$18,493.03

TABLE COMPARING YEARLY COSTS OF LABOUR AND HIRED MACHINERY ON ROAD TRANSPORT ITEMS

ITEM	1971	1972	1973	1974
*Sanding Streets	\$ 16,930.94	\$ 22,338.45	\$ 13,839.81	\$ 36,417.53
Sanding Sidewalks	-	-	5,777.38	11,390.45
Snowplowing Sidewalks	7,077.38	10,945.46	5,986.38	9,385.93
Snow Control	122,556.12	155,087.03	110,736.97	99,906.89
Grading & Gravelling	340.93	248.28	625.61	12,548.36
Lincoln Road	59.93	627.57	731.80	-
Wilsey Road	483.01	616.32	1,755.20	1,366.38
Doak & Flanagan Rds.	66.62	265.66	213.58	2,030.46
Maryland Road	2,190.18	332.02	159.28	2,266.54
Rural Rds.(Other)	103.03	266.64	145.92	2,284.69
Asphalt Repairs	30,963.01	23,057.62	20,492.98	53,014.82
Motor Graders	2,050.49	1,036.45	2,126.37	3,780.02
Parking Lots	352.28	8.49	869.01	56.92
Clearing Along Rt.-of-Ways	-	-	-	8,044.07
Chip Seal	153.88	232.32	193.54	4,437.55
Surface Seal	1,192.70	3,339.66	3,073.56	5,956.30
Administration	-	-	4,948.41	12,276.98
Street Signs	-	-	1,214.47	4,549.71
TOTALS	\$184,520.50	\$218,401.97	\$172,890.27	\$269,713.60

* Sanding Sidewalks included for 1971 and 1972.

(b) SIDEWALKS (Maintenance)

The expenditure under this heading amounted to \$6,069.32 and was made up as follows:

Labour and Hired Machinery	\$ 4,062.13	
City Machinery Charges	548.00	
Materials	<u>2,311.23</u>	
GROSS EXPENDITURE		\$ 6,921.36
LESS CREDITS	<u>852.04</u>	
NET EXPENDITURE	<u>\$ 6,069.32</u>	

The credits were for the following:

Work done and materials used for Private Parties \$ 852.04

(c) STREETS (General Maintenance)

The expenditure under this heading is for ditching and installation of culverts.

The total net expenditure under this heading was \$74,936.45 and is made up as follows:

Labour and Hired Machinery	\$ 25,817.15	
City Machinery Charges	21,137.00	
Materials	<u>28,408.76</u>	
GROSS EXPENDITURE		\$ 75,362.91
LESS CREDITS	<u>426.46</u>	
NET EXPENDITURE	<u>\$ 74,936.45</u>	

The above credit of \$426.46 is for gravel and installation of culverts for Fred McAdam Subdivision.

(d) SURFACE SEWERS

GROSS EXPENDITURE	\$ 32,570.98
LESS CREDITS	<u>3,460.84</u>
NET EXPENDITURE	<u>\$ 29,110.14</u>

The above credits were for the following:

Journal Vouchers (Materials)	\$ 1,713.65
Work done & materials used for Private Parties	<u>1,747.19</u>
	\$ 3,460.84

The Surface Sewers in the City were flushed where necessary and all Catch Basins were cleaned and repaired during the year and repairs were made to any breaks that occurred or extensions required for the sewer outfalls, amounting to \$29,110.14, made up as follows:

Labour	\$ 13,369.27
Hired Machinery	733.00
City Machinery	4,432.50
Materials Less Credits	<u>10,575.37</u>
TOTAL	<u>\$ 29,110.14</u>

(e) STREET CLEANING AND FLUSHING

GROSS EXPENDITURE	\$138,341.31
LESS CREDITS	<u>909.58</u>
NET EXPENDITURE	<u>\$137,431.73</u>

The GROSS EXPENDITURE is made up as follows:

Labour	\$ 82,724.42
Hired Trucks & Machinery	8,641.60
City Machinery	16,578.50
Materials	<u>30,396.79</u>
TOTAL	<u>\$138,341.31</u>

The above credits were for the following:

Journal Vouchers (Machinery)	\$ 623.50
Province of New Brunswick	48.57
E. M. Young (Leaf Rakes Returned)	192.78
Journal Voucher (Leaf Rakes)	35.22
Canadian National Railway (Labour)	<u>9.51</u>
	\$ 909.58

City Machinery and Material charges amounted to \$46,975.29 and was made up as follows:

Journal Vouchers (Pension Funds, Space Rental (City Yard), and City Machinery, Etc.)	\$ 34,079.99
Parts - Sicard Flusher	883.15
Parts - Wayne Sweeper	2,275.71
Main Brooms & Gutter Brooms	2,579.48
Hand Brooms, Repairs to Carts, Etc.	2,395.48
Anti-Litter Cans	188.14
Purchases of Materials (CaCl Etc.)	4,460.66
Parts - Ford Oil Truck	<u>112.68</u>
	\$ 46,975.29

The Wayne Sweeper (purchased in 1968) worked 1376 Hours. The operating cost for cleaning streets with this machine was \$19,311.96 and was calculated as follows:

Labour & Repairs on Sweeper	
(Including Shop Labour)	\$ 7,056.50
Maintenance & Gutter Wire	
Brooms	2,579.48
Gasoline (2201.7 Gallons)	854.91
Oil	81.38
Water (467,840 Gallons)	225.28
Labour (Including Workmen's Compensation, Holiday and Pension Fund-Operators)	<u>8,514.41</u>
TOTAL	<u>\$ 19,311.96</u>

The operating dates for the above machine (Sweeper) were from April 28, 1974 to November 20, 1974.

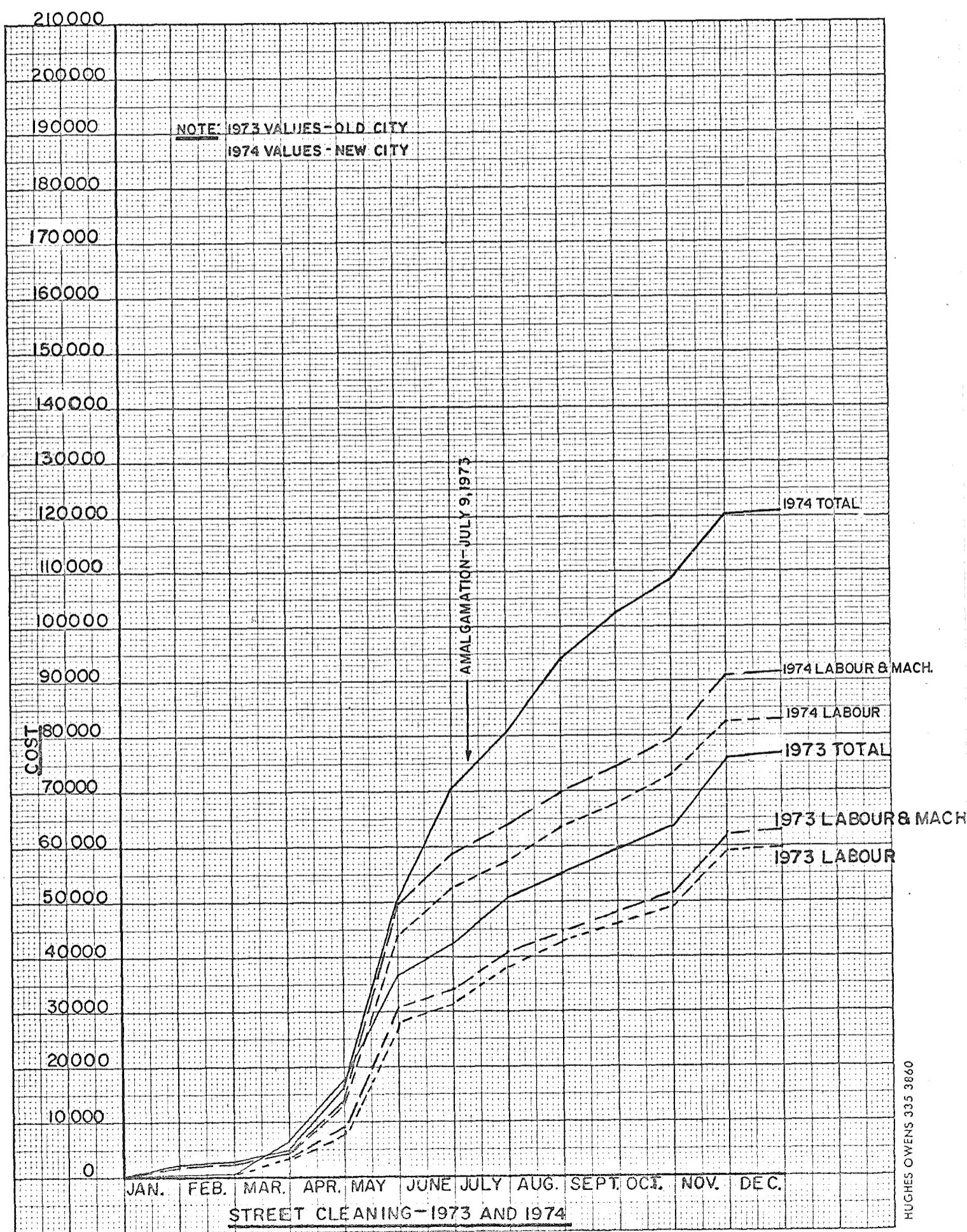
In 1955 the City of Fredericton purchased a Sicard Master Flusher with a capacity of 2,250 Imperial Gallons. The operating dates for this machine (Flusher) were from May 27, 1974 to October 24, 1974.

The Flusher worked 656 Hours. The operating costs of flushing streets with this machine was \$7,872.68 and was computed as follows:

Labour & Repairs to Flusher	
(including Shop Labour)	\$ 2,124.41
Gasoline (2087.10 Gallons)	805.18
Oil	66.75
Water (2,952,000 Gallons)	1,343.15
Labour (including Workmen's Compensation, Holiday and Pension Fund-Operators)	<u>3,533.19</u>
TOTAL	<u>\$ 7,872.68</u>

The following is a list of machinery used in street cleaning and dust control (gravelled roads) together with the repair costs for 1973 and 1974, including tires and tubes:

Name of Machine	Year Purchased	1973 Repairs	1974 Repairs
Wayne Sweeper #52	1968	\$ 6,811.61	\$ 7,056.50
Sicard Flusher #18	1955	926.25	2,124.41
Ford (1947) Oil Truck #53	-	311.40	158.84
TOTALS		\$ 8,049.26	\$ 9,339.75



(f) SNOW AND ICE REMOVAL

(1). Salting and Sanding Streets & Sanding Sidewalks

Storing sand in Winter Storage Pile and spreading same on slippery streets and sidewalks.

Streets:

Labour	\$ 34,590.33
Hired Trucks & Machinery	1,827.20
City Machinery Charges	20,672.50
Materials	<u>57,282.66</u>
TOTAL EXPENDITURE	<u>\$ 114,372.69</u>

Sidewalks:

Labour	\$ 11,044.47
Hired Trucks & Machinery	345.98
City Machinery Charges	3,370.00
Materials	<u>19,094.23</u>
TOTAL EXPENDITURE	<u>\$ 33,854.68</u>

LESS CREDIT:

Work done & materials supplied to
Private Parties \$ 2,290.45

TOTAL NET EXPENDITURE \$ 145,936.92

10,491 Cubic Yards of sand was purchased during the Fall of 1974. The sand was supplied by Douglas Kelly & Wendall Thomas at a price of \$1.50 per cubic yard, delivered to the City Stock Pile at several locations.

In 1974, 2,943.79 tons of salt was used for ice control. The cost and distribution charges are included under the above heading. The City purchased 2,873.79 tons of salt in 1974. In stock as of December 31, 1974 - 180 tons.

(2). Snow Control

Streets: Blowing, shovelling and hauling snow, plowing or scraping roads, cleaning gutters, thawing catch basins of ice and snow and any other means of snow control.

The total cost of Snow Control (Streets) amounted to \$163,856.88 and was made up as follows:

Labour	\$ 54,141.24
Hired Trucks & Machinery	45,765.65
City Machinery Charges (bulldozers, graders, etc.)	36,839.00
Expendable Materials (grader blades, chains, etc.)	6,815.46

Maintenance of Snow Equipment ...	\$ 1,623.15
Miscellaneous Materials (shovels, picks, etc. & Compensation)	<u>18,672.38</u>
TOTAL	<u>\$ 163,856.88</u>

The following table shows comparative labour (including hired trucks and machinery) costs of Snow Control for the year 1972 to 1974 inclusive:

	1972	1973	1974
Snow Plowing Roads & Streets	\$ 77,008.88	\$ 50,036.91	\$65,871.65
Blowing, Hauling & Shovelling	59,366.00	44,878.99	13,333.30
Catch Basins	14,216.38	11,907.57	16,329.30
Snow Fences	1,182.76	770.90	2,215.80
Plowing Parking Lots	610.73	353.45	640.12
Repairs	2,702.28	2,789.06	1,516.72
TOTALS	\$155,087.03	\$110,736.88	\$99,906.89

For the period of Jan. 1, 1974 to Apr. 30, 1974 the City of Fredericton was responsible for plowing, sanding and salting 103.935 miles of Roads and Streets and the remaining mileage of 63.452 was the responsibility of the Department of Highways.

The approximate cost for the period from January 1 to April 30 was \$165,299.26 giving a unit cost of \$1,590.41 per mile.

The City took over the responsibility of the mileage of Roads and Streets formerly maintained by the Department of Highways on May 1, 1974. The approximate cost for the period from May 1, 1974 to Dec. 31, 1974 was \$119,053.57 giving a unit cost of \$711.25 per mile for the total mileage of 167.387 maintained, during this period.

The overall cost for plowing, salting and sanding City Roads and Streets was therefore \$284,352.83 and was made up as follows:

Labour	\$ 88,731.57
Hired Trucks & Machinery	47,592.85
City Machinery Charges	57,511.50
Materials (Sanding & Salting) ..	57,282.66
Repairs to Equipment	7,746.41
Expendable Materials	6,815.46
Miscellaneous Materials	<u>18,672.38</u>
TOTAL	\$284,352.83(1)

Sidewalks:

73.46 miles of sidewalk were plowed during the winter months in 1974.

The total expenditure under this heading amounted to \$12,000.93 and was made up as follows:

Labour	\$ 7,477.93
Hired Machinery	1,908.00
City Machinery	<u>2,615.00</u>
TOTAL	<u>\$12,000.93</u>

In 1974, the unit cost of plowing and sanding one mile of sidewalk was approximately \$624.23 and was made up as follows:

Labour	\$ 18,522.40
Hired Trucks & Machinery	2,253.98
City Machinery Charges	5,985.00
Materials (Sand)	<u>19,094.23</u>
TOTAL	<u>\$ 45,855.61(2)</u>

$$\text{Unit cost per mile} = \frac{\$45,855.61}{73.46} = \$624.23$$

The overall cost, including Compensation, Pension Fund, and Sick Leave was approximately \$669.61 per mile.

TOTAL COST OF SNOW CONTROL - Add (1) and (2) =
\$330,208.44

NET COST OF SNOW CONTROL

(less City Machinery Charges \$63,496.50) ... \$266,711.94

Snowfall in Fredericton for the last five years was as follows:

January 1, 1970 to December 31, 1970	121.2 inches
January 1, 1971 to December 31, 1971	107.6 inches
January 1, 1972 to December 31, 1972	163.0 inches
January 1, 1973 to December 31, 1973	62.0 inches
January 1, 1974 to December 31, 1974	84.2 inches

The following equipment is used on Snow Control and the repair and maintenance cost for this equipment is shown as follows:

Name of Vehicle	Year Purchased	1973 Repairs	1974 Repairs
Dodge 3 Ton #60	1967	\$ 463.02	\$ 1,107.50
Ford Oil Truck #61	1960	1,047.72	1,967.03
International Sand Spreader #62	1951	1,002.88	1,370.29
Sicard Snow Blower #86	1949	3,120.91	157.81
1955 Sicard Snow Blower #87	1961	-	305.40
Sicard Snow Blower #88	1963	3,820.28	640.48
Bombardier #134	1968	561.50	480.51
Dodge 3 Ton #215	1966	-	1,678.44
Oil-Fired Boiler	-	807.60	38.95
TOTALS	\$10,823.91	\$ 7,746.41

(4) STREET LIGHTING

The Multiple Lighting System for the entire City of Fredericton as of December 31, 1974 consisted of:

10 - 125 W. MV. Wood @ \$48.00 per light per year
87 - 125 W. Ref. MV. @ \$34.80 per light per year
166 - 175 W. MV. Wood @ \$55.20 per light per year
2 - 175 W. MV. Concrete @ \$66.60 per light per year
385 - 175 W. Ref. MV. @ \$42.00 per light per year
33 - 175 W. Ref. MV. @ \$55.20 per light per year
9 - 250 W. MV. Wood @ \$73.20 per light per year
1250 - 250 W. Ref. MV. @ \$60.00 per light per year
14 - 250 W. MV. Concrete @ \$84.60 per light per year
414 - 400 W. Ref. MV. @ \$80.40 per light per year
2 - 400 W. Flood light @ \$0.24 per light per year
1 - 500 W. Ref. MV. @ \$60.00 per light per year

Additions or Removals

1 - 125 W. Ref. MV. @ \$34.80 removed
1 - 250 W. Ref. MV. @ \$60.00 added
2 - 400 W. Ref. MV. @ \$80.40 added

The total street lighting costs for 1974 are as follows:

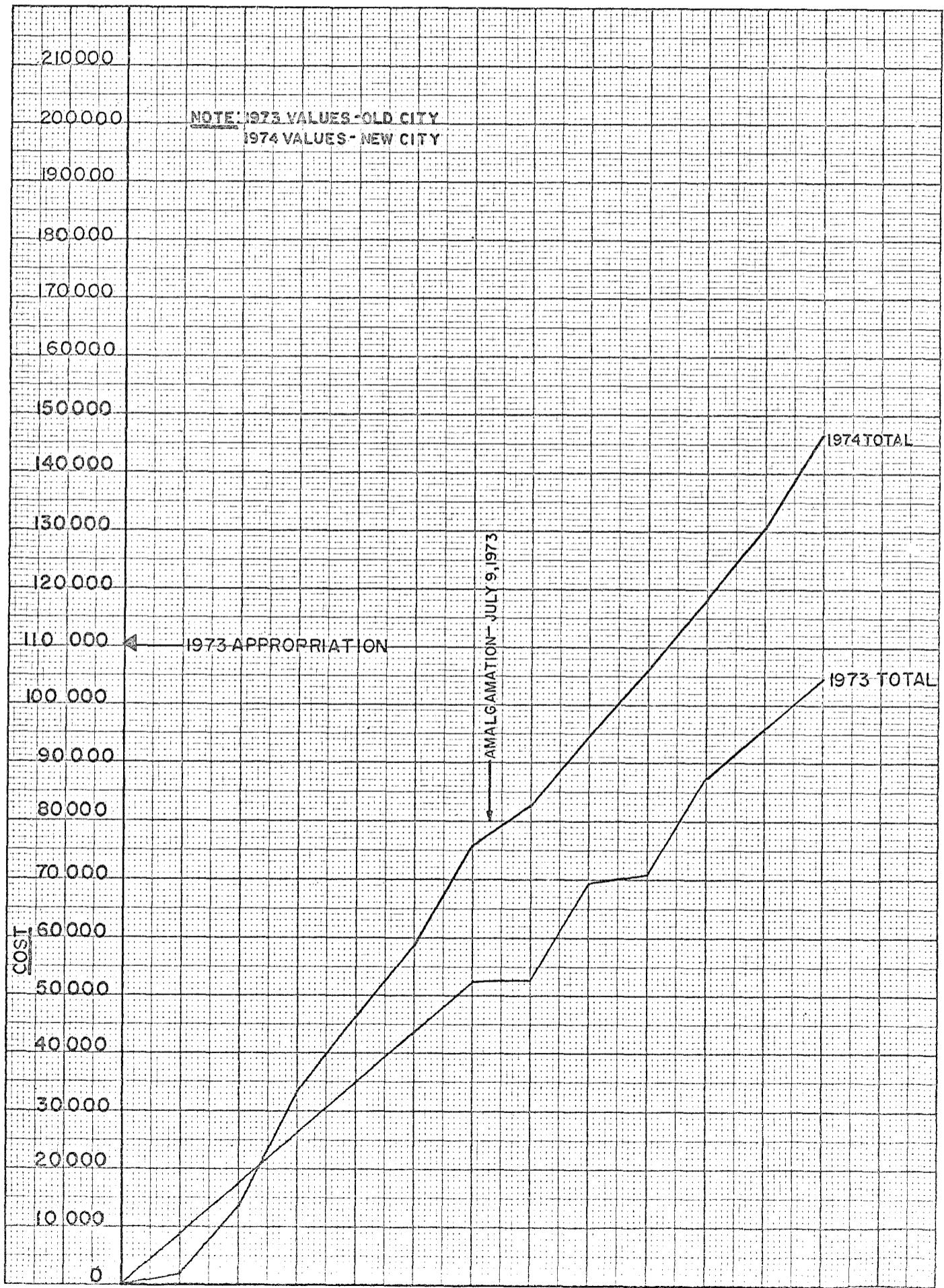
GROSS EXPENDITURE	\$ 146,664.89
LESS CREDITS	<u>-</u>
NET EXPENDITURE	<u>\$ 146,664.89</u>

The above expenditure is made up as follows:

N.B.E.P.C. (Marysville School) ..	\$ 36.60
N.B.E.P.C. (Marysville Cenotaph).	32.00
N.B.E.P.C. (Multiples & Mercurys-Fredericton)	104,853.00
N.B.E.P.C. (F'ton Cenotaph)	293.57
N.B.E.P.C. (1974 Poles)	4,255.00
Labour	13.16
Light Bulbs	20.60
N.B.E.P.C. (Multiples & Mercurys-Nashwaaksis)	15,626.57
N.B.E.P.C. (Multiples & Mercurys-Marysville)	14,075.34
N.B.E.P.C. (Multiples & Mercurys-Silverwood)	2,618.67
N.B.E.P.C. (Multiples & Mercurys-Barker's Point)	<u>4,840.38</u>
TOTAL	<u>\$ 146,664.89</u>

TABLE SHOWING COMPARATIVE YEARLY COST IN STREET LIGHTING

Year	Total Yearly Cost	Yearly Appropriation
1957	\$ 33,101.56	\$ 29,000
1958	36,038.79	33,500
1959	39,907.64	37,500



STREET LIGHT COSTS - 1973 AND 1974

<u>Year</u>	<u>Total Yearly Cost</u>	<u>Yearly Appropriation</u>
1960	\$ 44,481.71	\$ 44,010
1961	46,835.74	46,965
1962	46,989.38	47,875
1963	52,400.10	51,975
1964	57,682.43	56,930
1965	63,526.25	62,874
1966	72,083.35	70,180
1967	74,017.50	73,010
1968	80,012.18	76,915
1969	72,591.54	82,305
1970	78,928.31	78,000
1971	87,714.60	89,400
1972	107,018.55	105,000
1973	104,877.03	110,000
1974	146,664.89	180,000

(5) TRAFFIC SERVICES

The expenditure under this heading is made up as follows:

- (1) Street Signs
- (2) Off Street Parking

(1) Street Signs:

Purchasing, repairing and installing Street Signs on City Streets.

The expenditure under this heading amounted to \$11,288.60 and was made up as follows:

Labour	\$ 4,549.71
City Machinery	975.00
Materials	<u>7,330.50</u>
LESS CREDITS	<u>32.60</u>
NET EXPENDITURE	<u>\$ 12,822.61</u>

The above credit of \$32.60 is for a Journal Voucher regarding Decals.

(2) Off Street Parking:

The expenditure under this heading amounted to \$202.05 and was made up as follows:

Hired Machinery	\$ 6.00
Labour	50.92
City Machinery Charges	122.00
Materials	<u>23.13</u>
TOTAL	<u>\$ 202.05</u>

The above costs are for maintenance and snow removal for the Public Parking Area west of the Canadian Legion Building, Queen Street.

The following is a list of vehicles and machinery used in COMMON SERVICES, together with the repair costs for 1973 and 1974, including tires and tubes:

Name of Vehicle or Machinery	Year	1973 Repairs	1974 Repairs
Ford Custom #1	1972	\$ 327.19	\$ 305.49
Dodge 1/2 Ton #3	1970	1,012.36	396.69
G.M.C. Panel #4	1974	-	494.41
Dodge 1/2 Ton #6	1971	440.11	566.50
Chev. 1/2 Ton #8	1972	70.52	126.23
Chev. 3 Ton #9	1971	725.88	446.47
Ford Van #10	1964(B.P.)	-	1,657.84
G.M.C. 1/2 Ton #15	1974	-	122.44
G.M.C. 3 Ton #16	1973	4.00	113.07
Dodge 3 Ton #17	1969	460.93	1,482.52
Ford 3 Ton #19	1970	473.46	605.37
International 3 Ton #20	1968	589.93	519.49
Ford 3 Ton #21	1972	164.87	238.43
International 3 Ton #22	1973	841.89	1,230.69
Dodge 3 Ton #23	1974	-	161.47
Galion Grader #36	1966	4,806.21	4,558.31
Austin Western 300 Pacer #37	1962	3,091.10	5,043.82
Galion Grader #38	1972	1,136.06	3,996.86
Caterpillar 120 Grader #39	1974	-	-
Caterpillar 120 Grader #40	1974	-	-
Caterpillar 120 Grader #41	1974	-	-
Caterpillar 120 Grader #42	1974	-	-
Dodge 1/2 Ton #51	1967	469.39	47.17
Dodge Vac-All #54	1971	2,015.67	1,717.06
Hy-Hoe Backhoe #55	1964	2,133.84	1,612.73
Unit #56	1957	2,205.66	-
Hopto Backhoe #57	1973	-	6,786.67
Ingersol Rand Compressor #58	1969	96.71	153.11
Hy-Hoe Backhoe #59	1974	-	841.83
Chev. 3 Ton #63	1954	192.83	389.97
Chev. Sand Truck #64	1967	-	-
Miller Welder #65	1959	-	-
Arpic Compressor #66	1953	-	-
Ingersol Rand Compressor #67	1957	23.88	237.44
Atlas Copco Compressor #68	1964	209.92	299.40
Atlas Copco Compressor #70	1974	-	14.18
Essick Roller #72	1970	265.98	251.53
Essick Roller #73	1971	119.74	89.11
Vibras Compactor #74	1969	96.41	124.11
Essick Roller #75	1974	-	70.26
Ford Tractor #82	1974	-	69.75
Miller Welder #91	1971	50.88	-
Chev. 5 Ton Plow & Sander #101	1974	-	83.47
Ford 5 Ton Plow & Sander #102	1974	-	-
Ford 1/2 Ton #111	1974	-	58.33
Ford 1/2 Ton #112	1974	-	75.87
Ford 1/2 Ton #114	1974	-	41.04
Ford 3/4 Ton #120	1974	-	-
Kaiser Jeep #126	1970	709.00	824.36
Kaiser Jeep #127	1971	729.56	559.16
Ford Bronco #128	1969	1,042.23	798.44
International Scout #129	1972	260.92	458.44
International Scout #130	1973	66.53	319.09
International Scout #131	1974	-	100.11
Michigan 55A Loader #135	1974	-	25.75
Michigan 55A Loader #136	1974	-	26.49
Michigan 55A Loader #137	1974	-	42.51
Michigan 55A Loader #138	1974	-	60.91
Case W-9 Loader #141	1970	4,111.52	4,195.33
Allis Chalmers Loader #142	1970	5,037.06	9,339.23

Name of Vehicle or Machinery	Year	1973 Repairs	1974 Repairs
Case W-18 Loader #143	1974	\$ -	\$ 117.06
Caterpillar D-5 Dozer #146	1969	6,677.37	5,035.61
International TD-8 Dozer #147	1971	874.07	504.94
Case 850 Dozer #148	1968	3,344.00	191.03
Case 750 Dozer #149	1965	4,180.60	3,021.25
Dodge 1/2 Ton #201	1973	-	306.72
G.M.C. 3 Ton Dump #202	1974	-	641.96
Dodge 3 Ton Dump #203	1969	-	1,610.93
Ford 1 Ton #204	1969	-	1,061.18
Dodge 3 Ton Dump #205	1972	-	2,555.85
Case Backhoe-Loader #207	1971	-	3,028.58
Case Bulldozer #208	1968	-	1,793.39
Essick Roller #214	1974	-	-
Case Backhoe-Loader #253	1972	-	1,775.80
Case Bulldozer #254	1973	-	68.47
Gardner Denver Compressor #255	1968	-	52.28
Trailor 15 H.P. Boiler #256	-	-	193.67
TOTALS	-	\$ 49,058.28	\$73,737.67

The following items of machinery were purchased in 1974
and charged to TRANSPORTATION SERVICES:

1 - Chevrolet 1/2 Ton Panel - ASSET NO. 4

Serial # CCQ-164-F-175040

Cost	\$ 4,280.00
8% Tax	342.40
License	<u>6.00</u>
	\$ 4,628.40
Cash	<u>115.00</u>
	\$ 4,743.40

1 - Chevrolet 3 Ton Dump - ASSET NO. 202

Serial # CCE-614-V-145266

Cost	\$ 7,298.00
8% Tax	583.84
License	<u>6.00</u>
	\$ 7,887.84

1 - Dodge 3 Ton Dump - ASSET NO. 23

Serial # D-61-Fg-4-J015185

Cost	\$ 7,050.00
8% Tax	<u>564.00</u>
	\$ 7,614.00

1 - Atlas Copco Compressor - ASSET NO. 70

Serial # 243-726

Cost	\$ 7,996.00
8% Tax	<u>639.68</u>
	\$ 8,635.68

1 - 1967 Chevrolet 4 Ton Cab & Chassis - ASSET NO. 64

Serial # CE-6371103161

From Department of Natural Resources
for \$1.00

1 - G.M.C. 1/2 Ton Pick-Up - ASSET NO. 15

Serial # TCQ-1441530695

Cost	\$ 3,333.00
8% Tax	266.64
License	<u>6.00</u>
	\$ 3,605.64

1 - International Scout II - ASSET NO. 131

Serial # DGD-40330

Cost	\$ 4,850.00
8% Tax	388.00
License	<u>6.00</u>
	\$ 5,244.00

1 - Essick Model V30W Roller - ASSET NO. 214

Serial # 72495483

Cost	\$ 3,760.00
8% Tax	<u>300.80</u>
	\$ 4,060.80

1 - Essick Model V30W Roller - ASSET NO. 75

Serial # 72495484

Cost	\$ 3,760.00
8% Tax	<u>300.80</u>
	\$ 4,060.80

1 - Stow Plate Tamper Model T51B

Serial # 73311722

Cost	\$ 1,028.50
8% Tax	<u>82.28</u>
	\$ 1,110.78

1 - Case Model W18 Loader - ASSET NO. 143

Serial # 9112782

Cost	\$ 27,900.00
8% Tax	<u>2,232.00</u>
	\$ 30,132.00

(15) C.S.D.P. - Equipment Acquisition:

In order to maintain a high degree of service to the various areas of the City, additional equipment was purchased under Capital Service Development. Equipment purchased under Capital Service Development can be found following the Capital Service Development Projects.

GROSS EXPENDITURE	\$ 479,053.44
LESS CREDITS	<u>377,905.12</u>
CITY NET EXPENDITURE TO DEC. 31/74	<u>\$101,148.32</u>

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1	\$ 180,932.38
Province of New Brunswick-	
Claim #2	<u>196,972.74</u>
	<u>\$377,905.12</u>

(16) C.S.D.P. - 1975 Storm Sewer - Nashwaaksis:

The expenditure for this was for a preliminary survey regarding 1975 work done by J. E. Brooks and Associates Ltd.

EXPENDITURE	\$ 1,256.32
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The following items of machinery were purchased in 1974 and charged to Capital Service Development Equipment:

1 - SMI Model 5150 Snowblower

Serial # 45158

Cost	\$ 54,175.00
8% Tax	<u>4,334.00</u>
TOTAL	\$ 58,509.00

4 - Caterpillar Model 120 Series G Motor Graders

Serial # 82V634, 82V638, 82V639, 82V644

Cost	\$ 182,952.00
8% Tax	<u>14,636.16</u>
TOTAL	\$ 197,588.16

CAPITAL ACCOUNT CURB & GUTTER

The net expenditure under this heading amounted to
\$80,222.67.

For the above expenditure, concrete curb and gutter was constructed at the following locations:

<u>Location</u>	<u>Lineal Feet</u>
Ashfield Street - Both sides	3,515
Bristol Street - Both sides	2,303
Limerick Road - Both sides	992
Flemming Road - Both sides	1,264
Wetmore Road - Both sides	1,626
Tilley Drive - Both sides partially)	
- One side partially)	1,874
Hazen Court - Both sides	1,141
Parkside Drive - Both sides	2,272
Mayland Court - Both sides	733
Priestman Street - Both sides	1,100
McKeen Street	123
 TOTAL	<u>16,943</u>

All the above listed Curb and Gutter was constructed by City Crews.

All the concrete poured was purchased ready-mix from Gordon's Ready-Mix Ltd. at a price of \$25.85 per cubic yard.

The unit cost of one lineal foot of curb and gutter, found by dividing the total length laid, which equals 16,943 lineal feet into the total cost of \$80,222.67 is \$4.74 per lineal foot. The topsoiling of boulevards is included in this cost.

The unit cost of one lineal foot of curb and gutter minus topsoiling was \$4.17 per lineal foot and was calculated as follows:

Topsoiling Costs:

Labour	\$ 3,649.52
Hired Trucks & Machinery	249.00
City Machinery	1,228.00
Materials (2,156 cu. yds. topsoil)	<u>4,457.04</u>
 TOTAL	<u>\$ 9,583.56</u>

Total cost of Curbing,	
including Topsoiling	\$ 80,222.67
Cost of Topsoiling	<u>9,583.56</u>
TOTAL COST OF CURBING . <u>\$ 70,639.11</u>	

Cost/Lin. Ft. in Place = \$70,639.11 = \$4.17
16,943

Cost/Lin. Ft. of Topsoiling = 9,583.56 = \$0.57
16,943

Labour cost of constructing 1 Lineal Foot of Curb and Gutter, minus Topsoiling was .. \$39,795.42 = \$2.35
16,943

The overall cost per foot of Curb and Gutter including Workmen's Compensation, etc. was \$5.08.

CAPITAL ACCOUNT PAVING

In 1974, Gorman Construction Co. Ltd. was awarded a contract to lay pavement and resurface a number of City Streets.

The material cost amounted to \$116,175.59 and was made up as follows:

Gorman Construction Co. Ltd.

5.65 Tons Sand Seal @\$13.50 per ton	\$ 76.28
23.20 Tons Top Asphalt @\$13.00 per ton	301.60
5121.75 Tons 3/4" Dense Mix Asphalt @\$13.00 per ton	66,582.75
1184.45 Tons 3/8" Minus Asphalt @\$16.00 per ton	18,951.20
400.00 Tons 1/2" Dense Mix Asphalt @14.50 per ton	5,800.00
2572.5 Gallons of RSI Tack Coat @\$0.40 per gallon ...	1,029.00
4000 Gallons of N.B. Primer @\$0.35 per gallon ...	1,400.00
1226.35 Tons Top & Seal Asphalt @\$14.50 per ton	17,782.08

Diamond Construction (1961) Ltd.

5.15 Tons Seal Asphalt	61.80
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<u>A.D.I. Limited (Asphalt Testing Services)</u>	1,125.00
-------------------------------------------------------	----------

<u>Miscellaneous (Journal Vouchers- Salaries, Materials, Pensions, Paint, Etc.)</u>	<u>3,065.88</u>
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TOTAL	<u>\$116,175.59</u>
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The street preparatory work, other than the laying in place of the pre-mixed material, was done by regular City Crews at an expenditure of \$13,455.52 made up as follows:

City Labour	\$ 9,445.52
Hired Trucks & Machinery	265.50
City Machinery	<u>3,744.50</u>
TOTAL	<u>\$13,455.52</u>

The total expenditure under this heading amounted to \$129,631.11 and was made up as follows:

Diamond Construction (1961) Ltd.	\$ 61.80
City Labour	9,445.52
Hired Trucks & Machinery	265.50
City Machinery Charges	3,744.50
Gorman Construction Co. Ltd.....	111,922.91
Miscellaneous	3,065.88
A.D.I. Limited	<u>1,125.00</u>
NET EXPENDITURE	<u>\$129,631.11</u>

The paving program required the supply and placement of the following grades of materials:

- 1). New pavement 3/4" Dense Mix
@\$13.00/Ton in Place
- 2). Recap 1/2" Minus
@\$14.50/Ton in Place
- 3). Surface Seal 3/8" Minus
@\$16.00/Ton in Place

1). New Pavement

The following streets were paved with 3/4" Hot Mix by Gorman Construction Co. Ltd.

<u>Location</u>	<u>Lineal Feet</u>
Bradford Street	730
Nottingham Street	950
Bristol Street	1,250
Parkside Dr.-Parklyn Ct. to Meadow Green Ct.	1,000
Mayland Court	300
Priestman St.-Existing to 500' East	500
Ashfield Street	1,850
Hazen Court	500
Limerick Rd.-McNair to Flemming Rd.	500
Flemming Rd.-Tilley Dr. to Wetmore Rd.	650
Wetmore Rd.-Flemming Rd. to Tilley Dr.	900
Tilley Dr. (Partially)	<u>690</u>
TOTAL	9,820

9,820 Lineal Feet = 1.86 Miles

For the above, the following materials were used:

4000 Gallons N.B. Prime	
@\$0.35 per gallon	\$ 1,400.00
5121.75 Tons 3/4" Hot Mix Asphalt	
@\$13.00 per ton	<u>66,582.75</u>
TOTAL	
<u>\$67,982.75</u>	

The street grading and preparatory work was done by regular City Crews.

2). Recap 1/2" Minus

The following streets were recapped by Gorman Construction Co. Ltd. in 1974:

<u>Location</u>	<u>Lineal Feet</u>
Barker St.-C.N.R. Tracks towards Nashwaak River	800
Sumac St.-Riverside Dr. to Colwell St.	300
Campbell St.-Carleton St. to Regent St.	700
Brookside Dr.-C.P.R. Tracks to Oakland Street	<u>4,150</u>
TOTAL	<u>5,950</u>

5,950 Lineal Feet = 1.13 miles

The following material was used for the above streets:

1626.35 Tons @\$14.50 per ton	\$23,582.08
28.85 Tons @\$13.098 per ton	<u>377.88</u>
TOTAL	<u>\$23,959.96</u>

3). Surface Seal 3/8" Minus

The following City Streets were surface sealed under "Capital Account" with 3/8" Minus Hot Mix:

<u>Location</u>	<u>Lineal Feet</u>
Hearne Street	290
Richards Court	275
McNair Drive	1,592
Canterbury Dr.-Cambridge Cres. to Woodbridge Street	1,350
Priestman St.-Smythe St. to Regent St.	3,200
Michener Court	375
Chestnut St.-Reid St. to #679	240
Gulliver Dr.-Kennedy Ct. to Walker St.	380
Walker Street	<u>485</u>
TOTAL	<u>8,187</u>

8,187 Lineal Feet = 1.55 miles

For the above streets, the following materials were used:

1184.45 Tons 3/8" Minus Asphalt	
@\$16.00 per ton	\$ 18,951.20
2572.5 Gallons Tack Coat	
@\$0.40 per gallon	<u>1,029.00</u>
TOTAL	<u>\$ 19,980.20</u>

CAPITAL ACCOUNT DOMESTIC SEWER

GROSS EXPENDITURE	\$ 171,135.25
LESS CREDIT	<u>164,518.34</u>
NET EXPENDITURE	<u>\$ 6,616.91</u>

Included in the Gross Expenditure of \$171,135.25 is the amount of \$11,289.23 holdback from jobs completed in 1974 and showing in 1975 accounts.

The above credit is made up as follows:

Journal Vouchers (materials paid for by Capital Account Domestic Sewer & charged to other City Departments)	\$ 42,439.36
Work done and materials sold to Private Parties	2,425.72
Metro Home Builders)	15,511.80
Chippins Ltd.) Local	19,302.26
Greendale Ltd.) Improve-	121.75
Parkside Dev. Ltd.) ment	9,809.65
Wulastook Ind. Ltd.) Charges	4,859.45
N. B. Housing Corp.)	64,432.31
National Leaseholds-Engineering Costs for Proposed New Mall	3,127.72
Incorrect Entry of Courtney Invoice	<u>2,488.32</u>
TOTAL CREDITS..	<u>\$164,518.34</u>

Domestic Sewer Mains were constructed at the following locations:

Location	L I N E A L F E E T			
	6" A.C.	8" A.C.	10" A.C.	10" Duct.
Mansfield St.(installed by John Kilburn & Sons)		300		
McKeen St.Ext..(installed by John Kilburn & Sons)		1,242		
Neville St.(installed by F'ton Housing)		1,372		
***Whiting Rd. (installed by F'ton Housing)		896	1,635	
Southwood Park(Wetmore Rd., Chandler Dr., Bliss St., Doyle Ct., Colebrook Ct., (installed by F'ton Housing)		4,050		
*Greenfields Dr.(installed by E.J. Ludford Line)			104	

Location

LINEAL FEET

	6" A.C.	8" A.C.	10" A.C.	10" Duct.
**C.S.D.P. Nashwaaksis (Maple St., Preston Dr.- installed by John Kilburn & Sons)		1,210	382	
**C.S.D.P. Aerated Lagoon Lincoln Rd. (installed by M.E.Phillips & Son Ltd.)				180
TOTAL ..		9,070	2,121	180

* Incomplete in 1974

** See Capital Service Development Projects for costs

*** Costs included in Industrial Park Land Account

TOTAL LINEAL FEET OF MAIN INSTALLED IN 1974 = 11,371

The actual cost of installing the above listed Domestic Sewer Mains excluding the Capital Service Development Projects (C.S.D.P.) was as follows:

Location	Payment to Contractors Including Reserve For Holdback	City Labour & Machinery	Materials	Total
Mansfield St.	\$ 3,626.00	\$ 220.85	\$ 1,012.60	\$ 4,859.45
McKeen St. Ext.	13,079.63	1,706.59	4,516.04	19,302.26
Neville St.	11,322.00	593.09	4,628.78	16,543.87
Whiting Rd.	17,815.00	659.16	10,069.77	28,543.93
Southwood Park	33,800.00	1,450.95	12,637.49	47,888.44
*Greenfields Dr.	1,445.00	737.92	303.81	2,486.73
TOTALS	\$81,087.63	\$5,368.56	\$33,168.49	\$119,624.68

* Incomplete in 1974

The above costs include any holdback payments thus showing the actual cost of construction.

The following is the cost of laying various sizes of pipe including manholes by Contractors and City Workmen and Machinery:

Location	COST PER LINEAL FOOT			
	6" A.C.	8" A.C.	10" A.C.	10" Duct.
Mansfield St.		16.20		
McKeen St. Ext.		20.23		
Neville St.		12.06		
Whiting Rd.		10.86	11.55	
Southwood Park		12.09		

All the above Domestic Sewer Mains were laid in a common trench with the water main.

Materials in stock as of December 31, 1974:

6410 Lin. Ft. of 4" A.C. Pipe	
@\$0.72 per foot	\$ 4,615.20
255 Lin. Ft. of 5" A.C. Pipe	
@\$1.26 per foot	321.30
2650 Lin. Ft. of 6" A.C. Pipe	
@\$1.02 per foot	2,703.00
1784 Lin. Ft. of 8" A.C. Pipe	
@\$1.77 per foot	3,157.68
1520.5 Lin. Ft. of 8" A.C. Pipe	
@\$2.10 per foot	3,193.05
991.5 Lin. Ft. of 10" A.C. Pipe	
@\$2.46 per foot	2,439.09
152 Lin. Ft. of 12" A.C. Pipe	
@\$2.60 per foot	395.20
91 Lin. Ft. of 16" A.C. Pipe	
@\$4.27 per foot	388.57
6 - Special "B" St. Thru Sections with stubs @\$104.96 each	629.76
38 - Special "B" St. Thru Sections with Holes @\$104.96 each	3,988.48
3 - 3-Way-Rt. Special "B" Sections with stubs @\$150.72 each	452.16
2 - 3-Way-Lt. Special "B" Sections with stubs @\$150.72 each	301.44
18 - "A" Sections @\$44.51 each	801.18
8 - "B" Sections @\$68.87 each	550.96
8 - "C" Sections @\$89.00 each	712.00
12 - Standard "DX" Sections @\$14.09 each	169.08
9 - Flat-Top "DX" Sections @\$14.09 each	<u>126.81</u>
TOTAL	<u>\$ 24,944.96</u>

CAPITAL ACCOUNT SURFACE SEWER

GROSS EXPENDITURE	\$316,491.73
LESS CREDIT	<u>286,086.44</u>
NET EXPENDITURE	<u>\$ 30,405.29</u>

The above credit is made up as follows:

Journal Vouchers (materials paid for by Capital Account Surface Sewer & charged to other City Departments).....	\$124,145.73
Work done & materials sold to Private Parties	3,300.87

Metro Home Builders)		\$ 17,392.01
Chippins Ltd.) Local		13,658.35
Greendale Ltd.) Improve-		157.44
Parkside Dev. Ltd.) ment		4,179.16
Wulastook Ind. Ltd.) Charges		7,869.22
N.B. Housing Corp.)		110,883.66
Department of Highways-		
Balance of Cost-Brookside Dr.....		4,500.00

TOTAL CREDITS ..\$286,086.44

Under this heading Surface Sewer Mains and Laterals were constructed at the following locations:

Location	LINEAL FEET - CONCRETE PIPE						
	10"	12"	15"	18"	24"	30"	36"
Mansfield St.(installed by John Kilburn & Sons)	28	286					
McKeen St. Ext.(installed by John Kilburn & Sons)	229	114			107		
Neville St.(installed by F'ton Housing)	264		347	960			
*Greenfields Dr.(installed by E.J. Ludford Line)		488	144				
Southwood Park(Wetmore Rd., Chandler Dr., Bliss St., Doyle Ct., Colebrook Ct.- installed by F'ton Housing)	458	1,124	1,476	721	340		
Whittaker Textiles(installed by John Kilburn & Sons)					300		
**C.S.D.P.-Na'sis (Douglas Ave.-South end to Maple & Fulton-installed by John Kilburn & Sons)	368	757	1,220	65	1,010	900	
**C.S.D.P.-Na'sis (Maple St.& Preston Dr.-installed by John Kilburn & Sons)	380	1,261	555		284	714	539
**C.S.D.P.-Marysville			176	200			90
TOTALS	1,727	4,030	3,918	1,946	2,041	1,614	629

* Incomplete in 1974

** See Capital Service Development Projects for costs

TOTAL LINEAL FEET OF MAIN INSTALLED IN 1974 = 15,905

An itemized account was kept for the installing of the above Surface Sewers at the following locations (excluding the C.S.D.P.-Capital Service Development Projects):

Location	Payment To Contractors Including Reserve For Holdbacks	City Labour & Machinery	Material	Total
Mansfield St.	\$ 5,646.00	\$ 248.23	\$ 1,974.99	\$ 7,869.22
McKeen St. Ext.	9,246.80	854.13	3,557.42	13,658.35
Neville St.	20,628.00	493.17	11,034.68	32,155.85
Greenfields Dr.	9,456.08	901.46	3,704.30	14,061.84
Southwood Park	49,953.00	3,099.04	25,675.77	78,727.81
TOTALS	\$94,929.88	\$5,596.03	\$45,947.16	\$146,473.07



Following is the cost of laying various sizes of pipes including Catch Basins and Manholes in place by Contractors and City Workmen and Machinery:

Location	C O S T P E R L I N E A L F O O T					
	10"	12"	15"	18"	24"	30"
Mansfield St.	23.84	25.34				
McKeen St. Ext.	22.24	23.94			25.32	27.43
Neville St.	18.17		20.63	21.05		
Southwood Park	16.75	18.25	19.21	19.76	23.42	

Stock on hand December 31, 1974:

9 - C.B. Frames @ \$131.22	\$ 1,180.98
800 Lin. Ft. of 10" Conc. pipe @\$1.76 per foot	1,408.00
380 Lin. Ft. of 12" Conc. pipe @\$3.26 per foot	1,238.80
1476 Lin. Ft. of 12" Conc. pipe @\$3.42 per foot	5,047.92
1040 Lin. Ft. of 15" Conc. pipe @\$4.48 per foot	4,659.20
259 Lin. Ft. of 18" Conc. pipe @\$4.90 per foot	1,269.10
893 Lin. Ft. of 18" Conc. pipe @\$5.05 per foot	4,509.65
592 Lin. Ft. of 24" Conc. pipe @\$11.47 per foot	6,790.24
160 Lin. Ft. of 30" Conc. pipe @\$11.71 per foot	1,873.60
56 Lin. Ft. of 36" Conc. pipe @\$17.10 per foot	957.60
8 Lin. Ft. of 60" Conc. pipe @\$40.33 per foot	322.64
26 C.B. Frames & Covers @\$166.79 each	4,336.54
15 M.H. Frames & Covers @\$166.79 each	2,501.85
2 M.H. Frames @\$131.22 each	<u>262.44</u>
 TOTAL	<u>\$36,358.56</u>

CAPITAL ACCOUNT WATER

GROSS EXPENDITURE	\$483,972.41
LESS CREDITS	<u>238,776.95</u>
*NET EXPENDITURE	<u>\$245,195.46</u>

The above credit is made up as follows:

Journal Vouchers (materials paid for by Capital Account Water & sold to other City Departments)..	\$ 71,467.25
Work done & materials sold	
to Private Parties	10,018.34
Metro Home Builders)	14,101.64
Chippins Ltd.) Local	26,990.84
Greendale Ltd.) Improve-	27.81
Parkside Dev. Ltd.) ment	2,914.82
Wulastook Ind. Ltd.) Charges	7,024.26
N.B. Housing Corp.)	<u>106,231.99</u>

TOTAL CREDITS...\$238,776.95

* Includes a net holdback expenditure of \$15,932.88
for the High Level Reservoir.

Water Main installations were made at the following
locations in 1974:

Location	L I N E A L F E E T - D U C T I L E P I P E				
	4"	6"	8"	10"	12"
Gibson St. (installed by John Kilburn & Sons)	12	57	4		2,272
Mansfield St. (installed by John Kilburn & Sons)			310		
McKeen St. Ext.(installed by John Kilburn & Sons)	503	25	884		
Neville St. (installed by F'ton Housing)		228	1,122		
***Whiting Rd. (installed by F'ton Housing)		80	4	2,646	
*Greenfields Dr. (installed by E.J. Ludford Line)					104
Southwood Park (Wetmore Rd., Chandler Dr., Bliss St., Doyle Ct., Colebrook Ct.- installed by F'ton Housing)		722	1,299	1,601	
**C.S.D.P. Na'sis-(Douglas Ave.--South end to Maple & Fulton-installed by John Kilburn & Sons)	50	122	1,343		
**C.S.D.P.-Na'sis-Maple St. & Preston Dr.-installed by John Kilburn & Sons)		615			
**C.S.D.P.-Marysville Reservoir					18
TOTALS	565	1,849	4,966	4,351	2,290

* Incomplete in 1974

** See Capital Service Development Projects for costs

*** Costs included in Industrial Park Land Account

TOTAL LINEAL FEET OF MAIN INSTALLED IN 1974 = 14,021



An itemized account was kept of installing Water Mains at the following locations and expenditures were made up as follows (does not include the Capital Service Development Projects C.S.D.P.):

Location	Payments To Contractors Including Reserve For Holdbacks	City Labour & Machinery	Materials	Total
Gibson St.	\$ 28,490.00	\$ 7,007.46	\$ 54,880.15	\$ 90,377.61
Mansfield St.	4,036.00	38.29	2,949.97	7,024.26
McKeen St. Ext.	15,604.30	1,353.37	10,033.17	26,990.84
Neville St.	10,300.00	635.92	14,164.33	25,100.25
Whiting Rd.	19,776.00	429.22	33,397.64	53,602.86
*Greenfields Dr.	1,135.60	286.30	1,239.84	2,661.74
Southwood Park	31,386.00	801.50	48,764.24	80,951.74
TOTALS	\$110,727.90	\$10,552.06	\$165,429.34	\$286,709.30

*Incomplete in 1974

The following shows the cost per foot for laying various sizes of pipe by Contractors and City Workmen and Machinery:

Location	C O S T P E R L I N E A L F O O T				
	4" Duct.	6" Duct.	8" Duct.	10" Duct.	12" Duct.
Gibson St.	30.54	32.49	34.72		38.19
Mansfield St.			22.81		
McKeen St. Ext.	22.95	23.85	25.72		
Neville St.		17.08	18.90		
Whiting Rd.		15.25	17.48	19.77	
Southwood Park		19.60	21.83	24.12	

Total inventory value as of December 31, 1974

..... \$238,199.96

(Includes cost of \$134,171.08 for 11,450 Lin. Ft. of 12" Ductile Pipe for Lincoln Road).

Cost of Well Water Supply to Date (South Side)

Total Cost to Dec. 31, 1973 \$372,401.41

Plus: Expenditures for 1974 54,605.97

TOTAL COST TO DEC.31/74 \$427,007.38

The expenditures for 1974 were for the following:

Lincoln Road & Flemming Road Area (Test Drilling)	\$ 12,983.67
Silverwood Exploration	<u>41,622.30</u>
	\$ 54,605.97

Fredericton North Water Supply
Including Feeder Lines, Wells, Reservoirs & Pump Houses

Total cost to Dec. 31, 1973	\$ 354,521.65
<u>Plus: Expenditures for 1974</u>	<u>299,388.13</u>
<u>TOTAL COST TO DEC. 31, 1974</u>	<u>\$653,909.78</u>

The expenditures for 1974 were for the following:

Water Exploration (Future	
Water Supply)	\$ 32,023.99
Marysville Reservoir	148,419.45
Nashwaaksis Well #1	28,567.08
Gibson Street Feeder Main	<u>90,377.61</u>
	<u>\$299,388.13</u>

CAPITAL SERVICE DEVELOPMENT PROJECTS

In 1974, projects were begun to upgrade newly amalgamated areas and services to bring them to City of Fredericton Standards. These projects are called Capital Service Development Projects. The expenses which occur from these projects are partially shared with the Province of New Brunswick up to a maximum grant of \$1,500,000.00 for 1974.

Each of the projects whether commenced or completed will be dealt with individually.

NOTE: Expenditures will be dealt with only. For any projects which involved pipe laying, the length and size of pipe laid will be found in tables either under "Capital Water", "Capital Domestic Sewer" or "Capital Storm Sewer".

(1) C.S.D.P. - Fulton Avenue and Douglas Avenue:

This project included the complete upgrading of the water main on Fulton Avenue from Maple Street to Longwood Drive, the construction of storm sewer on Fulton from Maple Street to Longwood Drive, and the construction of storm sewer on Douglas Avenue from the existing to Maple Street. This project also included the connection of any water, domestic, and storm sewer laterals.

GROSS EXPENDITURE	\$ 400,432.23
LESS CREDITS	<u>400,432.23</u>
CITY NET EXPENDITURE TO DEC. 31/74	<u>\$ -</u>

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1 (Water)	\$ 57,351.56
Province of New Brunswick-	
Claim #1 (Storm Sewer)	123,187.62
Province of New Brunswick-	
Claim #1 (Domestic Sewer)	10,182.06
Journal Vouchers (Materials) ..	22,993.11

Materials used on W.&S.	
Installations	\$ 89.99
Province of New Brunswick-	
Claim #2 (Water)	20,037.47
Province of New Brunswick-	
Claim #2 (Storm Sewer)	120,641.39
Province of New Brunswick-	
Claim #2 (Domestic Sewer)	4,605.32
Province of New Brunswick-	
Claim #3 (Water)	6,661.48
Province of New Brunswick-	
Claim #3 (Storm Sewer)	<u>34,682.23</u>
	<u>\$ 400,432.23</u>

(2) C.S.D.P. - Maple Street and Preston Drive:

This project included the upgrading of a section of water main on Preston Drive, upgrading Domestic Sewer along the easement from Preston Drive to Douglas Avenue, construction of interceptor Domestic Sewer along Maple Street from Preston Drive to Douglas Avenue and Oak Avenue to Wallace Avenue, construction of a storm sewer outfall along the easement from Preston Drive to Douglas Avenue, and the construction of storm sewer along Maple Street from Fulton Avenue to Douglas Avenue.

GROSS EXPENDITURE	\$ 281,238.76
LESS CREDITS	<u>281,238.76</u>
CITY NET EXPENDITURE TO DEC.31/74	<u>\$ -</u>

The above credits were made up of the following:

Province of New Brunswick	
Claim #1 (Storm Sewer)	\$ 34,387.25
Journal Vouchers (Materials) ...	7,617.82
Province of New Brunswick-	
Claim #1 (Water)	26,124.34
Province of New Brunswick-	
Claim #2 (Storm Sewer)	129,416.39
Province of New Brunswick-	
Claim #1 (Domestic Sewer)	32,603.06
Journal Voucher (Re-Claim #1- Domestic Sewer)	2,500.00
Province of New Brunswick-	
Claim #2 (Water)	3,135.24
Province of New Brunswick-	
Claim #2 (Domestic Sewer)	8,226.71
Province of New Brunswick-	
Claim #3 (Storm Sewer)	<u>37,227.95</u>
	<u>\$281,238.76</u>

(3) C.S.D.P. - Storm Sewer - Marysville:

This project involved the construction of a storm sewer interceptor on Canada Street near Crocket Street and storm sewer offtakes at:

416 Canada St., 430 Canada St., 502 Canada St.,
and intersection of Perley Ave. and Canada St.

GROSS EXPENDITURE \$8,000.03

(4) C.S.D.P. - Interconnection of Supply Main - Canada St.:

Expenditures incurred for this project in 1974 were for planning. The interconnection will be completed in 1975.

GROSS EXPENDITURE \$ 129.93

(5) C.S.D.P. - Marysville Reservoir:

In 1974, work commenced on a new 625,000 I.G. Reservoir to look after the supply of water to the Marysville Area. Work on this reservoir will continue in 1975.

GROSS EXPENDITURE \$148,419.45

LESS CREDITS 148,419.45

CITY NET EXPENDITURE TO DEC. 31/74\$ -

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1	\$ 6,371.75
Province of New Brunswick-	
Claim #2	79,901.20
Province of New Brunswick-	
Claim #3	<u>62,146.50</u>
	<u>\$148,419.45</u>

(6) C.S.D.P. - Water - Well #1 - Nashwaaksis:

To try and develop additional water supply, construction was begun on a new Well House for Well #1 and new pumps obtained to reactivate this well. This work should be completed in 1975.

GROSS EXPENDITURE \$ 28,567.08

LESS CREDITS 28,567.08

CITY NET EXPENDITURE TO DEC. 31/74 \$ -

The above credit was made up as follows:

Province of New Brunswick-	
Claim #1	\$10,454.46
Province of New Brunswick-	
Claim #2	<u>18,112.62</u>
	<u>\$28,567.08</u>

(7) C.S.D.P. - Water Exploration - Silverwood:

In 1973, it was found that Silverwood had a marginal water supply. At that time two pilot wells were drilled but had to be abandoned due to interference with private wells and/or lack of potential. Further exploration was carried out in 1974 incurring the following expenditure:

1973 Expenditure	\$ 5,759.00
1974 Expenditure to Dec. 31	<u>41,622.30</u>
EXPENDITURE TO DATE <u>\$47,381.30</u>	

(8) C.S.D.P. - Water - Lincoln Road:

The purpose of this project is to service the Lincoln Road Area with water. The contract has not been awarded to date and expenditures incurred are primarily for pipe acquisition and professional services.

GROSS EXPENDITURE	\$191,390.23
LESS CREDITS	<u>191,390.23</u>
CITY NET EXPENDITURE TO DEC.31/74 \$	<u>-</u>

The above credits are made up of the following:

Province of New Brunswick-	
Claim #1	\$ 44,739.28
Province of New Brunswick-	
Claim #2	146,210.75
S.T.E. Fetterly & Son Ltd.-	
Reduction in Federal Sales Tax .	<u>440.20</u>
	<u>\$191,390.23</u>

(9) C.S.D.P. - Aerated Lagoon - Lincoln:

In 1974, construction was begun on an aerated lagoon to service the Lincoln Road and Lincoln Area.

GROSS EXPENDITURE	\$ 31,643.52
LESS CREDITS	<u>31,643.52</u>
CITY NET EXPENDITURE TO DEC.31/74 \$	<u>-</u>

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1	\$ 9,708.60
Province of New Brunswick-	
Claim #2	<u>21,934.92</u>
	<u>\$31,643.52</u>

(10) C.S.D.P. - Domestic Sewer - Lincoln Road:

In 1974, tenders were called on a contract to provide domestic sewer service to the Lincoln Road Area. However, tenders were too high and the contract was not awarded. Expenditures charged against this project for 1974 are primarily for professional services.

GROSS EXPENDITURE	\$ 45,591.47
LESS CREDITS	<u>45,591.47</u>
CITY NET EXPENDITURE TO DEC.31/74	<u>\$ -</u>

The above credits are for the following:

Province of New Brunswick-	
Claim #1	\$ 40,671.57
Province of New Brunswick-	
Claim #2	<u>4,919.90</u>
	<u>\$ 45,591.47</u>

(11) C.S.D.P. - Future Water Supply - North Side:

In 1974, Canadian British Consultants were engaged to undertake an exploration program for Future Water Supply at the second level in North Fredericton.

GROSS EXPENDITURE	\$ 32,023.99
LESS CREDITS	<u>32,023.99</u>
CITY NET EXPENDITURE TO DEC.31/74	<u>\$ -</u>

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1	\$ 27,510.23
Province of New Brunswick-	
Claim #2	<u>4,513.76</u>
	<u>\$ 32,023.99</u>

(12) C.S.D.P. - Maintenance Depot - North Side:

Expenditures incurred in 1974 for this project were for professional services, design fees, soils investigation and site survey.

EXPENDITURE	\$ 13,873.23
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(13) C.S.D.P. - Water & Sewer - Woodstock Road:

This project is scheduled to start in 1975. Expenditures in 1974 were for professional services provided by Canadian British Consultants.

EXPENDITURE	\$ 21,924.39
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(14) C.S.D.P. - Solid Waste Disposal Site:

Expenditures incurred for this project in 1974 were for an option on land, soils investigation, site selection, and economic analysis.

EXPENDITURE	\$ 3,153.34
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(15) C.S.D.P. - Equipment Acquisition:

In order to maintain a high degree of service to the various areas of the City, additional equipment was purchased under Capital Service Development. Equipment purchased under Capital Service Development can be found following the Capital Service Development Projects.

GROSS EXPENDITURE	\$479,053.44
LESS CREDITS	<u>377,905.12</u>
CITY NET EXPENDITURE TO DEC. 31/74	<u>\$101,148.32</u>

The above credits were made up of the following:

Province of New Brunswick-	
Claim #1	\$180,932.38
Province of New Brunswick-	
Claim #2	<u>196,972.74</u>
	<u>\$377,905.12</u>

(16) C.S.D.P. - 1975 Storm Sewer - Nashwaaksis:

The expenditure for this was for a preliminary survey regarding 1975 work done by J. E. Brooks and Associates Ltd.

EXPENDITURE	\$ 1,256.32
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The following items of machinery were purchased in 1974 and charged to Capital Service Development Equipment:

1 - SML Model 5150 Snowblower

Serial # 45158

Cost	\$54,175.00
8% Tax	<u>4,334.00</u>
TOTAL	\$58,509.00

4 - Caterpillar Model 120 Series G Motor Graders

Serial # 82V634, 82V638, 82V639, 82V644

Cost	\$182,952.00
8% Tax	<u>14,636.16</u>
TOTAL	\$197,588.16

4 - Michigan Model 55A Tractor Shovels

Serial #416C-509-CAC, 416C-510-CAC, 416C-526-CAC, 416C-527-CAC

Cost	\$ 140,000.00
8% Tax	<u>11,200.00</u>
	\$151,200.00

1 - Chevrolet 5 Ton For Plow & Sander

Cost	\$ 10,348.92
8% Tax	<u>817.57</u>
	\$ 11,166.49

1 - Ford 3/4 Ton For Plow 4x4

Serial # F-26-YEV-43858

Cost	\$ 6,244.24
8% Tax	<u>499.55</u>
	\$ 6,743.79

1 - Ford 5 Ton For Plow & Sander

Cost	\$ 9,690.05
8% Tax	<u>765.21</u>
	\$10,455.26

3 - Ford F100 Super Cabs

Serial # F10-BKV 50769, F10-BKV 50768, F10-BKV 50770

Cost	\$ 15,074.19
8% Tax	<u>1,204.50</u>
	\$ 16,278.69
Plus (Bumper Hitches & Revolving Lights)	<u>423.48</u>
	\$ 16,702.17

1 - Plow & Wing For Chevrolet 5 Ton

Total Cost \$ 5,909.76

1 - Sander For Chevrolet 5 Ton - Installation Only

Total Cost \$ 1,709.44

1 - Sander For Ford 5 Ton - Installation Only

Total Cost \$ 1,709.44

1 - Plow For Ford 3/4 Ton

Total Cost \$ 1,599.44

3 - Sanders Total Cost \$12,797.40

CAPITAL ACCOUNT GRAVEL ROADS

GROSS EXPENDITURE	\$184,265.07
LESS CREDITS	<u>135,798.82</u>
NET EXPENDITURE	<u>\$ 48,466.25</u>

The above credits are made up as follows:

Work done and Materials sold to Private Parties	\$ 739.73
Journal Vouchers	2,240.77
Chippins Ltd.) Local	16,755.24
Greendale Ltd.) Improve-	15,111.00
Wulastook Ind. Ltd.) ment	7,336.15
N. B. Housing Corp.) Charges	93,615.93
TOTAL CREDITS	<u>\$135,798.82</u>

Included in the above expenditures are:

- 1). Grading and Gravelling Curbed Streets
- 2). Gravel Road Construction

1). Grading and Gravelling Curbed Streets

The list of streets under this heading will be found under "Capital Curb and Gutter", which is found in the body of this report on Page 25. The expenditure for gravelling Curbed Streets amounted to \$32,375.77.

2). Gravel Road Construction

The cost of constructing and gravelling the following streets under this heading was as follows:

Location	Lineal Feet	Expenditure
Mansfield St. Ext.	300	\$ 7,336.15
McKeen St. Ext.	1,547	16,755.24
Neville St.	1,390	24,874.08
Southwood Park	3,440	45,688.63
Elgin St.	602	14,612.00

The total mileage for new Street Construction under Capital Account Gravel Roads for 1974 = 1.86 miles.

CAPITAL TRAFFIC LIGHTS 1974

Expenditure \$ 10,620.83

The above expenditure is made up as follows:

Journal Vouchers (Payroll, Pension Funds, Machinery)	\$ 300.24
---------------------------------------------------------------	-----------

Stan Cassidy Ltd. (York & Dundonald Lights)	\$ 8,750.00
Stan Cassidy Ltd.	
(installation of special timer switch)	650.00
Stan Cassidy Ltd. (Hooking up flashing signals to Fire Station)	<u>920.59</u>
	<u>\$10,620.83</u>

CAPITAL ACCOUNT CITY HALL

Expenditure	\$ 22,605.28
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The above expenditure was made up as follows:

Journal Vouchers (Payroll, Pension Funds, Machinery)	\$ 44.40
Sub Surface Surveys (Soils Investigation)	2,167.50
Graham Parkin (Expenses & Costs)	20,305.55
Miscellaneous (Lumber, Advertising, Etc.)	<u>87.83</u>
	<u>\$ 22,605.28</u>

Total Expenditures To Date

Previous Expenditures	\$ 17,087.04
1974 Expenditures	<u>22,605.28</u>
TOTAL	<u>\$ 39,692.32</u>

CAPITAL ACCOUNT LIBRARY

Expenditure	\$ 420,787.75
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The above expenditure was made up as follows:

Journal Vouchers (Payroll, Pension Funds, Machinery)	\$ 19.94
Graham Parkin (Travel & Telephone Expenses)	1,286.18
Diamond Const. Claim #1	59,109.94
Diamond Const. Claim #2	42,830.71
Diamond Const. Claim #3	39,357.66
Diamond Const. Claim #4	82,444.56
Diamond Const. Claim #5	90,363.92
Diamond Const. Claim #6	105,374.84
Diamond Const. Claim #7	<u>85,221.34</u>
	<u>\$ 506,009.09</u>

Total Expenditures to Date

Previous Expenditures	\$ 29,770.04
1974 Expenditures	<u>506,009.09</u>
	<u>\$535,779.13</u>

CAPITAL ACCOUNT REGENT STREET RECONSTRUCTION

NON-SHAREABLE

In 1974, Phase 3 of the reconstruction of Regent Street was undertaken. In this phase, concrete curb and gutter was placed between Brunswick Street and Campbell Street and portions of the street paved with base and seal asphalt.

Under this heading City Crews constructed 1,460 lineal feet of concrete curb and gutter and Gorman Construction placed approximately 720 lineal feet of base and seal asphalt.

The expenditure under this heading amounted to \$21,270.83 and was made up as follows:

Journal Vouchers (Payroll, Pensions & Machinery)	\$ 8,594.05
Journal Vouchers (Materials)	189.29
F'ton Housing (1973 Holdback) ...	5,129.55
Diamond Const. (Crushed Rock) ...	417.20
Gorman Const. Co. Ltd. (Asphalt)	4,277.85
N.B. Telephone-Repairs to damaged facilities	750.00
Gordon's Ready-Mix Ltd. (Concrete)	<u>1,912.89</u>
	<u>\$21,270.83</u>

CAPITAL ACCOUNT KING STREET RECONSTRUCTION

In 1974, City of Fredericton Crews undertook the project of upgrading the complete block surrounding Kings Place. This upgrading included the widening of streets, construction of new curb and gutter, construction of walks, and paving of streets.

Under this heading streets were widened, approximately 3,295 lineal feet of curb and gutter placed, approximately 1,653 lineal feet of sidewalk placed and 1,710 lineal feet of streets paved.

The expenditure under this heading amounted to \$55,650.20 and was made up as follows:

Journal Vouchers (Payrolls, Pensions, Machinery, Etc.)	\$ 28,674.60
E. J. Ludford Line (Duct Installations)	4,345.00
Gordon's Ready-Mix Ltd. (Concrete)	6,901.93
Elmtree Concrete Ltd. (Concrete)	180.95
Gorman Const. Co. Ltd. (Seal & Base Asphalt)	13,852.35
Diamond Const. (Crushed Rock) ..	1,496.46
Provincial Artisans Inc. (Grade Stakes)	24.19
Sansom Equipment Ltd. (Rental of Vibrator)	113.40
Harry Smith (Topsoil)	<u>61.32</u>
	<u>\$ 55,650.20</u>

CAPITAL ACCOUNT - YORK ARENA

Expenditure \$ 1,731.04

The above expenditure is made up as follows:

Journal Voucher (Payroll)	\$ 475.98
Journal Voucher (Machinery)	340.00
Journal Voucher (Materials)	<u>915.06</u>
	<u>\$1,731.04</u>

LOCAL IMPROVEMENT 1974

The following summary of Local Improvement Projects undertaken or continued from 1973, shows the actual cost of construction (including holdback payments) which was paid for by the subdivider.

Location	Service	Cost	No. of Lots
Chippins Ltd. McKeen St., Fletcher Ct., Van Horne Ct.	Domestic Sewer Water Storm Sewer Gravel Road Sidewalk	\$ 23,109.09 34,462.58 22,830.14 17,790.84 <u>4,671.00</u> <u>TOTAL</u> <u>\$102,863.65</u>	35 Single
Greendale Ltd. Elgin St.	Domestic Sewer Water Storm Sewer Gravel Road Sidewalk	\$ 8,287.34 11,807.96 11,351.89 16,232.98 <u>2,574.00</u> <u>TOTAL</u> <u>\$ 50,254.17</u>	9 Single
Parkside Dev.Ltd. Smythe St. Ext. (Incomplete)	Domestic Sewer Water Gravel Road	\$ 26,703.30 22,331.59 <u>467.00</u> <u>TOTAL</u> <u>\$ 49,501.89</u>	Initial Services to Development- South of T.C.H.
Wulastook Ind. Mansfield St. Ext.	Domestic Sewer Water Storm Sewer Gravel Road Sidewalk	\$ 4,859.45 7,024.26 7,869.22 7,336.15 <u>2,545.00</u> <u>TOTAL</u> <u>\$ 29,634.08</u>	8 Single
N.B. Housing Corp. Neville St.	Domestic Sewer Water Storm Sewer Gravel Road Sidewalk	\$ 16,543.87 25,100.25 32,155.85 24,874.08 <u>5,500.00</u> <u>TOTAL</u> <u>\$104,174.05</u>	17 Single

Location	Service	Cost	No. of Lots
N.B. Housing Corp. Wetmore Rd., Chandler Dr., Bliss St., Doyle Ct., Colebrook Ct. (Incomplete)	Domestic Sewer Water Storm Sewer Gravel Road Sidewalk	\$ 47,888.44 81,131.74 78,727.81 68,741.85 <u>14,105.00</u>	
	TOTAL	<u>\$290,594.84</u>	
Parkside Dev. Greenfields Dr. (Incomplete)	Domestic Sewer Water Storm Sewer Sidewalk	\$ 1,789.91 1,526.14 4,179.16 <u>3,905.00</u>	
	TOTAL	<u>\$ 11,400.21</u>	Initial Services to Complete Con- nection to Prospect Street

Summary of Costs To Subdividers For Services - 1974

Domestic Sewer	\$129,181.40
Water	183,384.52
Storm Sewer	157,114.07
Gravel Road	135,442.90
Sidewalk	<u>33,300.00</u>
	<u>\$638,422.89</u>

ENVIRONMENTAL HEALTH SERVICES

GROSS EXPENDITURE	\$300,340.47
LESS CREDITS	<u>-</u>
NET EXPENDITURE	<u>\$300,340.47</u>

Under the above heading, the following items are included:

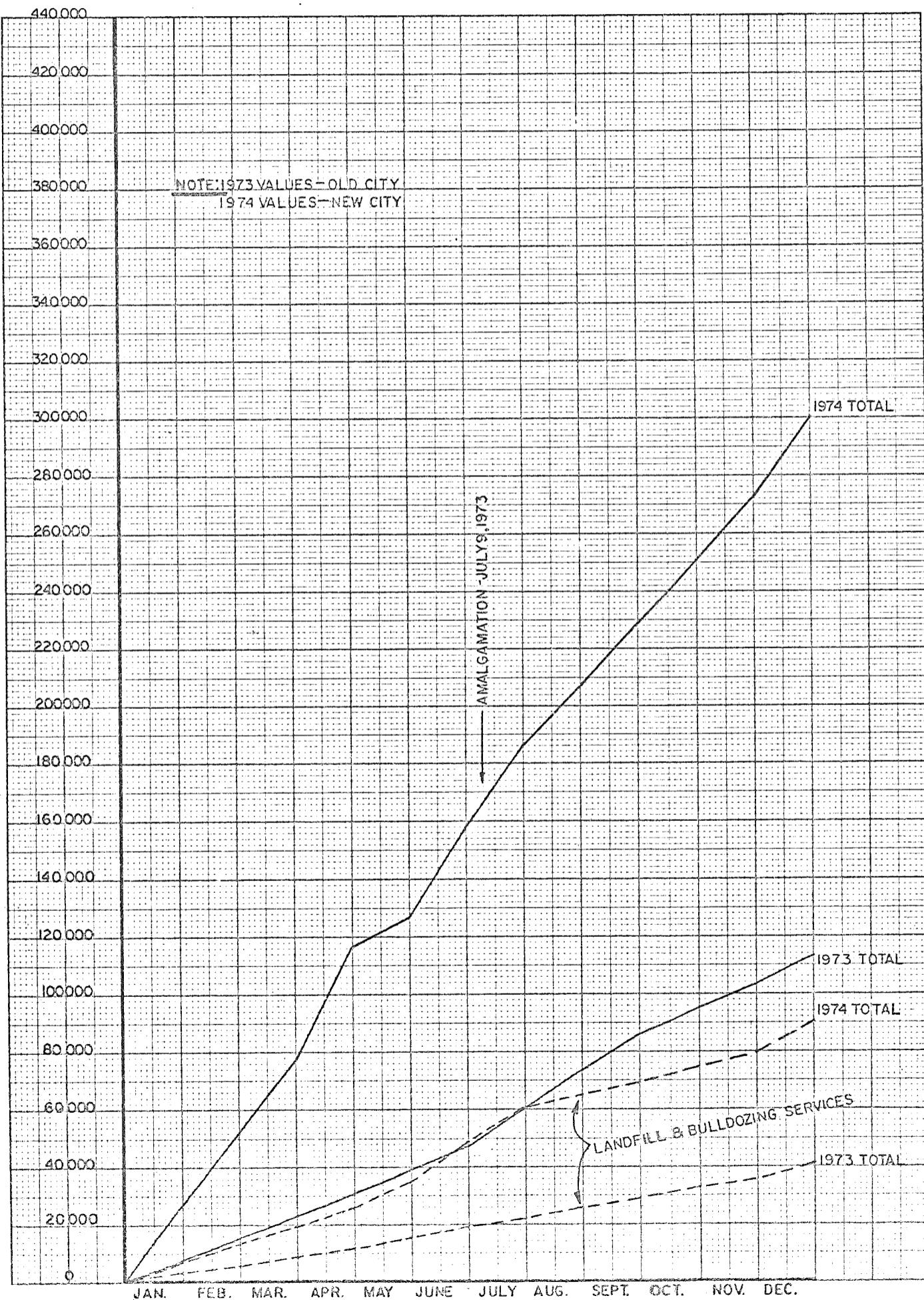
- (1) Garbage & Waste Collection
- (2) Sanitary Landfill - Disposal

(1) Garbage & Waste Collection:

The Garbage and Waste Collection was operated by Graymoor Holdings Ltd. The amount paid for the above operation was \$210,082.10 in 1974.

(2) Sanitary Landfill - Disposal:

GROSS EXPENDITURE	\$90,258.37
LESS CREDITS	<u>-</u>
NET EXPENDITURE	<u>\$90,258.37</u>



The above expenditure is made up of the following:

Miscellaneous (Advertising, Materials, Etc.)	\$ 328.75
Journal Vouchers (Payroll, Machinery, Pension Funds)	9,224.70
Gerard Burns (Sanitary Landfill Bulldozing Services)...	38,840.04
Forbes & Sloat (Gravel)	4,287.28
C.W. Guthrie & Son (Cover Material)	25,877.60
Bemrose & Kilburn (Use of D-8 Tractor)	<u>11,700.00</u>
	\$ 90,258.37

PUBLIC HEALTH & WELFARE SERVICES (CEMETERIES)

Under this heading are included:

- (1) The Old Burial Ground
- (2) The Loyalist Burial Ground

(1) The Old Burial Ground

GROSS EXPENDITURE	\$ 3,656.07
LESS CREDITS	<u>-</u>
NET EXPENDITURE	<u>\$ 3,656.07</u>

The above expenditure was made up as follows:

Journal Vouchers (Lights, Payroll, Pension Funds, Gasoline, Oil, Machinery, Etc)...	\$ 3,157.37
N.B.E.P.C. (Lights)	367.67
Workmen's Comp.-1974 Assessment..	78.00
Materials (Thiopoxy Cement, Paint & Brushes)	<u>53.03</u>
TOTAL	<u>\$ 3,656.07</u>

(2) The Loyalist Burial Ground

In 1974, the upkeep expenditure amounted to \$109.16 made up as follows:

Workmen's Compensation	\$ 2.08
Labour	100.52
Journal Vouchers (Pension Funds).	<u>6.56</u>
TOTAL	<u>\$ 109.16</u>

FLOOD CONTROL & REPAIRS

Expenditures under this heading were incurred during spring flooding. The total expenditure amounted to \$2,026.10 and was made up as follows:

Journal Vouchers (Payroll, Machinery, Pension Funds).....	\$ 1,677.41
Bemrose & Kilburn Ltd. (Shale)	325.00
Minister of Finance (Tax on Purchases)	<u>23.69</u>
TOTAL	<u>\$ 2,026.10</u>

TRANSITION

During 1974, there were further expenditures incurred regarding transition due to amalgamation. The total expenditure under this heading for 1974 was \$41,677.56 and is made up as follows:

Journal Vouchers (Payroll, Machinery, Pension Funds)	\$ 3,556.28
Pollution Control Services (Work Regarding Silverwood)	428.00
J. E. Brooks & Associates (Services Re 1974 Work)	1,814.71
A.D.I. Ltd. (Professional Services)	249.00
Seaboard Surveys (Work Re Silverwood-Water & Sewer)	246.55
L & A Machine Works (Sign Blades & Sign Posts)	14,132.90
Auto Machinery (Material for mounting signs)	421.74
DeWolfe Hardware (Street Sign Accessories)	5.00
Seaboard Surveys (Work Re Street Plans)	5,389.01
J.L. Simms & Sons Ltd. (Bolts & Clamps for Signs)	103.22
Atlantic Rentals Ltd. (Post Hole Auger)	324.00
Gary Stafford (Overtime)	143.60
Trainor Surveys Ltd. (Updating North Side Plans)	11,000.00
Thorne Riddell & Co. (Professional Accounting Services)	3,767.00
J.W. Bird & Co. Ltd. (Padlocks for Pump Houses)	52.49
Department of Natural Resources (Prints)	<u>44.06</u>
TOTAL	<u>\$ 41,677.56</u>

CULTURAL SERVICE

(a) Wilmot Park

Expenditure	\$ 9,976.49
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The above expenditure is made up as follows:

Journal Vouchers (Park Lights, Payroll, Machinery, Materials, Pensions, Gas, Oil, Etc.)	\$ 6,643.84
City of Fredericton (Water & Sewer Rates)	82.21
Materials (Grass Seed, Peat Moss, Flowers, Paint, Etc.)	367.96
N.B.E.P.C. (Park Lights)	857.97
M.I.T. Sales Ltd. (Litter Baskets)	817.80
L & A Machine Works (Posts for Baskets)	549.46
Workmen's Compensation (1974 Assessment)	197.60
Outdoor Equipment Ltd. (Mower & Dump Cart)	<u>459.65</u>
	<u>\$ 9,976.49</u>

(b) Odell Park

Included in the above heading are the following:

- (1) Odell Park Maintenance
- (2) Odell Park Development

(1) Odell Park Maintenance:

GROSS EXPENDITURE	\$ 14,846.25
LESS CREDITS	<u>126.00</u>
NET EXPENDITURE	<u>\$ 14,720.25</u>

The above expenditure was made up as follows:

Journal Vouchers (Payroll, Diesel Fuel, Gas, Oil, Materials, Pension Funds, Etc.)..	\$ 12,729.69
City of Fredericton (Water & Sewer Rates)	46.04
Workmen's Compensation Board	296.39
N.B. Telephone (Telephone)	133.49
Equipment (Repairs, Parts & Purchases)	577.44
Miscellaneous (Feed and Materials, Etc.)	<u>1,063.20</u>
	<u>\$ 14,846.25</u>

The above credit of \$126.00 was for Journal Vouchers regarding Inter Department Use of the M-F Tractor.

(2) Odell Park Development:

There were no expenditures charged to Odell Park Development in 1974.

(c) Carleton Park

Expenditure \$ 6,231.56

The above expenditure was made up as follows:

Journal Vouchers (Payroll, Gas, Oil, Pension Funds, Machinery, Materials, Use of Ford Tractor, Etc.)	\$ 4,777.91
Marathon Realty Co. Ltd. (Rent for Park Lease)	1,200.00
Workmen's Compensation -1974	
Assessment	130.00
Materials (Topsoil, Tap, Linsolene, Etc.)	<u>123.65</u>
	<u>\$ 6,231.56</u>

(d) Development of Park Areas

GROSS EXPENDITURE	\$ 2,618.33
LESS CREDITS	<u>130.65</u>
NET EXPENDITURE	<u>\$ 2,487.68</u>

The gross expenditure was made up as follows:

Journal Vouchers (Payroll, Machinery, Pensions, Etc.)	\$ 1,470.64
Materials (Linsolene, Rock Dust, Chain Link Fence)	992.12
Workmen's Compensation-1974	
Assessment	52.00
Minister of Finance (S.S.& E. Tax on 1973 Purchases)	<u>103.57</u>
	<u>\$ 2,618.33</u>

The above credit of \$130.65 was for Journal Vouchers regarding Cedar Posts.

(e) Other Parks

GROSS EXPENDITURE	\$ 2,277.62
LESS CREDITS	<u>-</u>
NET EXPENDITURE	<u>\$ 2,277.62</u>

The gross expenditure was made up as follows:

Journal Vouchers (Payrolls, Pensions, Machinery, Materials)..	\$ 1,798.99
Workmen's Compensation-1974	
Assessment	156.00
Malcolm Early - Mowing Parks in Silverwood	240.00
Miscellaneous (Repairs to Mower, Chain Fenching, Etc.)	<u>82.63</u>
	<u>\$ 2,277.62</u>

(f) Public Works

GROSS EXPENDITURE	\$ 150,206.98
LESS CREDITS	<u>86,831.74</u>
NET EXPENDITURE	<u>\$ 63,375.24</u>

The above total credits of \$86,831.74 will be found separately under the various items which make up the above heading.

The hired trucks, labour and City Machinery charged under Public Works Expenditure were incurred as follows:

Item	Labour & Supervision	Hired Trucks	City Machinery
Trees	\$47,132.57	\$5,618.15	\$16,772.50
Back Drain Diversion	587.44	7.50	144.00
Back Drain	306.46	-	15.00
Surface Sewer	-	-	-
Unforseen	7,400.07	-	353.00
Casual's Vacation Pay	19,250.98	-	-
TOTALS	\$74,677.52	\$5,625.65	\$17,284.50

Trees:

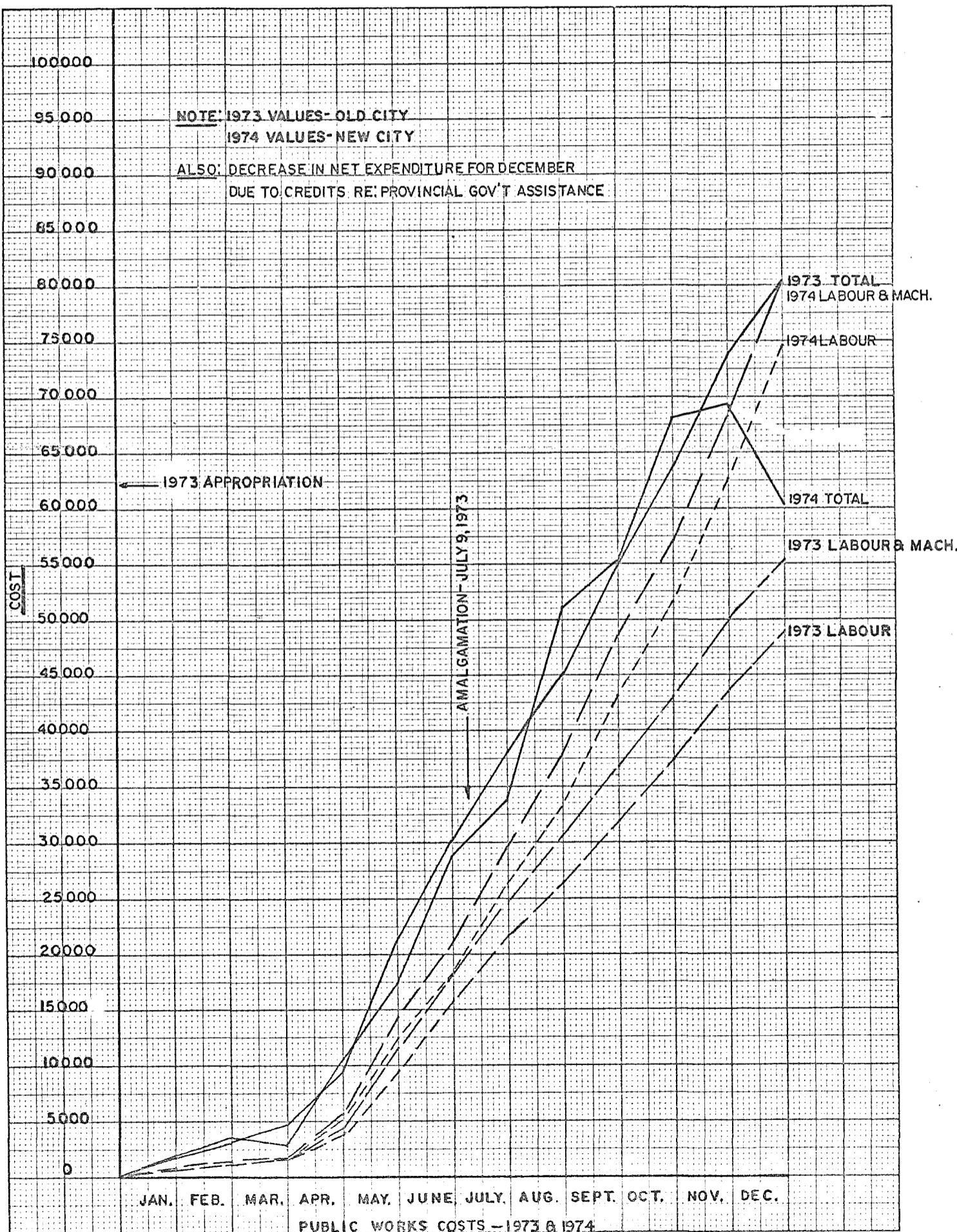
Expenditure \$102,227.99

The above expenditure of \$102,227.99 is made up as follows:

Supervision of Parks and Trees ..	\$ 7,207.61
Care of Trees - Pruning,	
Planting, Spraying, Removal	94,420.38
Mr. Charles Smith (Honorarium for Services Rendered)	<u>600.00</u>
	\$102,227.99
LESS CREDITS	<u>54,575.82</u>
NET EXPENDITURE	<u>\$ 47,652.17</u>

The above credits were made up as follows:

Journal Voucher (Rental of Chain Saws)	\$ 675.00
Journal Voucher (Use of Machinery)	297.00
Valley Forest Products (Sale of Elmwood)	11,047.32
Charges For Damaged Trees	65.00
Journal Voucher (Grass Seed) ...	18.00
Journal Voucher (Inter-Dept. Use of Stumper)	24.00
Payroll Correction	5,789.77
Gordon Banks (Sale of Elmwood) ..	625.69
*Province of New Brunswick- Share towards elm removal	35,467.00
Journal Voucher (Re Provincial Assistance Credit)	<u>567.04</u>
	\$ 54,575.82





* The Provincial Government allocated a maximum of \$40,000 in their fiscal year from April 1, 1974 to March 31, 1975 as their share towards removal of diseased elm trees in the pre-amalgamated area, where the majority of diseased trees have been found.

In 1974, 1,466 trees were removed upon the recommendation of the Fredericton Tree Commission. The condemned trees were either in a decadent condition, a menace to public safety or possible breeding places for the Elm Bark Beetle.

Following is a list of trees removed in 1974:

<u>Species</u>	<u>Number Removed</u>
Elm	1,400
Maple	29
Poplar	6
Pine	1
Spruce	7
Oak	1
Tamarack	2
Ash	1
Chinese Elm	14
Birch	2
Willow	3
TOTAL	<u>1,466</u>

The procedure followed at present time is as follows:

The trees are condemned by four members of the Fredericton Tree Commission. The list, signed by the four members of the Commission is then forwarded to the office of the City Engineer.

Trees on private property which are condemned as possible breeding places for the Dutch Elm Disease, are also removed by City Crews.

In 1974, 132 trees were removed with Dutch Elm Disease at various locations within the Pre-Amalgamated Fredericton.

Following is a list of trees (Elm) removed from 1964 to 1974 with Dutch Elm Disease:

Year	No. Lost to Dutch Elm Disease	% Lost to Dutch Elm Disease	Other Causes	Total
1964	14	29%	34	48
1965	8	24%	25	33
1966	12	21%	44	56
1967	18	20%	73	91
1968	33	16%	174	207
1969	30	21%	108	138
1970	49	39%	78	127
1971	57	42%	77	134
1972	61	42%	84	145
1973	92	46%	108	200
*1974	132	33%	266	398
TOTALS	506		1,071	1,577

*Pre-amalgamated City Only.

Permission for the removal of trees on private property, as well as a statement to the effect that no claim for damages will be filed by the property owners, are obtained before proceeding with this work.

Trees were planted at the following locations in 1974:

<u>Location</u>	<u>Number of Trees</u>
Foley Ct.	23
Parklyn Ct.	18
Prospect St.	22
Boyne St.	10
Bradford St.	19
Nottingham St.	20
Old Burial Ground	13
Waterloo Row	2
Charing Cres.	46
Flemming Rd.	6
Canada St.	29
Oxford St.	2
Oxford Ct.	6
717 Aberdeen St.	1
198 McNair Dr.	2
Canterbury Dr.	6
Cambridge Cres.	4
Surrey Cres.	12
Willingdon St.	4
Lynhaven Ct.	4
317 Kings College Rd.	1
Victoria St.	2
Haviland St.	2
250 Argyle St.	1
Colonial Heights	3
828 Brunswick St.	1
Walker St.	2
Gulliver Dr.	4
McLeod Ave.	5
Lynhaven St.	4
Trans Canada	47
TOTAL	321

99 trees were planted at various locations to replace losses due to dry weather and vandalism.

Under the above heading, the following trees were purchased in 1974 from Lansdowne Nursery, Fredericton, N.B. and John Connell Nurseries Ltd., Waterdown, Ontario:

John Connell Nurseries Ltd.:

25 Crimson King Maples 8'-10' @ \$11.50 each	\$ 287.50
25 Royal Red 6'-8' @ \$8.85 each	221.25
23 Acer Rubrum 6'-8' @ \$8.85 each	203.55
50 Sugar Maple 8'-10' @ \$9.00 each	450.00
50 Tilia Cordata 8'-10' @ \$7.00 each	350.00
54 Lombardy Poplar 8'-10' @ \$3.75 each	202.50

Lansdowne Nursery:

52 Norway Maple 8'-10' @ \$6.50 each	\$ 338.00
42 Schwedler Maple 8'-10' @ \$7.50 each	315.00
6 Schwedler Maple 6'-8' @ \$6.00 each	36.00
39 Sugar Maple 8'-10' @ \$8.75 each	341.25
11 Crimson Maple 8'-10' @ \$11.00 each	121.00
20 Tilia Cordata 8'-10' @ \$6.50 each	130.00
6 Tilia Cordata 6'-8' @ \$5.00 each	30.00
1 Elm 8'-10' @ \$5.00 each	5.00
TOTALS..... \$ 3,031.05	

A number of trees were also trimmed in 1974. The number and class of trees are as follows:

- (a) Large Trees (45' and Over)
 - Approximately 100 mixed species
- (b) Medium Trees (20' - 45')
 - Approximately 600 mixed species
- (c) Small Trees (6' - 20')
 - Approximately 2,000 mixed species

A number of stumps were also removed along City Streets.

Stumps Removed and Topsoiled 182

TREE REMOVAL (GOVERNMENT ASSISTANCE)

After Amalgamation on July 9, 1973, concern was expressed over the existence of decadent and diseased Elm Trees in the amalgamated area outside the boundary of the former City of Fredericton.

The Canadian Forest Service carried out a survey and found and marked some 1,100 trees that were recommended for removal. Negotiations were carried out with the Province of New Brunswick, Department of Natural Resources. The sum of \$50,000 was allocated as Provincial Assistance for the fiscal year 1973 ending on March 31, 1974.

City Crews commenced removal of the decadent and diseased trees on December 1, 1973 and 185 had been removed as of December 31, 1973. This work was continued in 1974.

Salvageable logs were shipped to the Nackawic Mill while brush and other non-salvageable logs were disposed of in the City of Fredericton gravel pits in Barker's Point.

The expenditure for tree removal for the period January 1, 1974 to March 31, 1974 was as follows:

Expenditure to March 31,	
1974	\$28,033.25
Less Credits	<u>28,033.25</u>
NET COST TO CITY	\$ -

The above credits were made up as follows:

Province of New Brunswick-	
Provincial Assistance	\$22,006.21
Valley Forest Products Ltd.-	
Sale of Pulpwood	<u>6,027.04</u>
	<u>\$28,033.25</u>

Back Drain:

Expenditure	\$ 339.70
Labour	\$ 306.46
City Machinery	15.00
Journal Vouchers (Materials & Pension Funds)	<u>18.24</u>
	<u>\$ 339.70</u>

Back Drain Diversion:

Expenditure	\$ 760.52
Labour	\$ 587.44
Hired Machinery	7.50
City Machinery	144.00
Journal Vouchers (Pension Funds)	<u>21.58</u>
	<u>\$ 760.52</u>

Maintenance of Greens, Drainage Area, Benches, Etc.:

Expenditure	\$19,158.52
-------------------	-------------

The above expenditure is made up as follows:

Journal Vouchers (Payroll, Machinery, Pension Funds, Diesel, Oil, Etc.- Greens).....	\$ 7,352.17
Journal Vouchers (Payroll, Machinery, Pension Funds,- Benches, Etc.)	986.46
Gulf Oil Canada Ltd. (Gasoline).	354.79
Repairs & Parts to Mowers	1,583.02
Repairs & Parts to Ford Tractor.	978.15
Bedding Plants, Tulip Bulbs, Fountain Repair Parts, Etc.)....	1,940.37
N.B. Tel (Mobile Radios)	4,819.56
Workmen's Compensation Assessment	<u>1,144.00</u>
	<u>\$19,158.52</u>

Less Credits:

Journal Vouchers (Inter-Dept.	
Use of Machinery, Gasoline, Lime) ..	\$ 3,305.37
Journal Vouchers (Mobile Radios).	<u>4,263.54</u>
NET EXPENDITURE	<u>\$ 11,589.61</u>

Casual's Vacation Pay:

The total expenditure amounted to \$19,250.98 for casual labour vacation pay.

Unforseen Account-Labour and Hired Trucks:

Unforseen (General)	\$ 34.36
Greens (Cutting, Raking, Seeding,	
Topsoiling, Etc.)	6,666.21
Benches (Painting and Repairs)	117.53
Cenotaph Stand	58.40
Beaverbrook Fountain	137.16
Rotary Auction	83.75
Taking Stock	216.54
Jury Duty	28.68
Safe Driving Seminar	<u>57.44</u>
TOTAL	<u>\$ 7,400.07</u>

CEMENT WALKS

GROSS EXPENDITURE \$ 32,739.35

For the above expenditure, Concrete Sidewalks were constructed at the following locations:

<u>Location</u>	<u>Lineal Feet</u>
Bristol St.	1,132
Ashfield St.	1,675
Priestman St.	265
Parkside Dr.	1,321
Limerick Rd.	508
Flemming Rd.	462
Wetmore Rd.	<u>794</u>
TOTAL	<u>6,157</u>

6,157 Lineal Feet = 1.17 Miles

The above expenditure is made up as follows:

Journal Vouchers (Payroll, Pensions, Machinery, Fuel, Materials)	\$ 16,333.86
Gordon's Ready-Mix (Concrete)...	12,655.63
Materials (Sand, Edgers, Stakes, Polyethelene, Etc.)	3,549.86
Car Allowances	<u>200.00</u>
	\$ 32,739.35

Less Credits:

N.B. Tel (Repairs to Sidewalk)...	\$ 32.04
Journal Voucher (Polyethelene)...	17.25
Local Improvement Charges	<u>26,055.00</u>
	\$ 26,104.29
NET EXPENDITURE	<u>\$ 6,635.06</u>

The cost of the above sidewalk was apportioned one half to the City and one half to the property owner until January 8/74 when Council passed an amendment which required the City of Fredericton to bear the entire cost of sidewalk installation except where Local Improvement Agreements are in effect with a Developer on new streets.

The concrete for the above construction of sidewalks was obtained from Gordon's Ready-Mix Ltd. at \$25.85 per cubic yard.

The actual cost for laying one lineal foot of sidewalk was \$5.70 which includes Compensation, Pension and Holiday Fund.

RECREATION

Expenditure \$ 3,682.24

The above expenditure does not include all playground expenditures, but only those which appear on departmental payrolls or costs of materials ordered through the office of the City Engineer. The salaries of the Recreation Director and Playground Supervisors hired for the summer months are not in the above costs, nor does the cost of equipment on the playgrounds appear here.

The above expenditure is made up as follows:

Journal Voucher (Gasoline, Diesel Fuel, Varsol)	\$ 1,181.35
Journal Voucher (Payroll)....	1,194.22
Journal Voucher (Machinery)...	387.50
Journal Voucher (Materials)...	859.88
Journal Vouchers (Pension Funds)	<u>59.29</u>
	\$ 3,682.24

CITY HALL

Expenditure \$ 682.09

The above expenditure is only the expenditure for the City Hall made through the office of the City Engineer and is not the total expenditure on City Hall.

The above expenditure is made up as follows:

Journal Vouchers (Payroll).....	\$ 617.71
Journal Vouchers (Machinery)	35.00
Journal Vouchers (Pension Funds)	25.49
E.M. Young Ltd. - Paint	
Scaper Knives	<u>3.89</u>
	<u>\$ 682.09</u>

FIRE DEPARTMENT

Expenditure \$300,825.16

The above expenditure was made up as follows:

Journal Voucher (Hydrant & Sprinkler Rental Charges).....	\$296,604.00
Journal Voucher (Gasoline & Diesel Fuel)	1,836.36
Journal Voucher (Payroll, Machinery, Materials, City Decals, Pensions, Etc.)	<u>2,384.80</u>
	\$300,825.16

LESS CREDIT:

Journal Voucher (Gasoline From Nashwaaksis Dept.)	<u>1,118.91</u>
	<u>\$299,706.25</u>

YORK ARENA

Expenditure \$ 9.96

The above expenditure was made up as follows:

Journal Vouchers (Varsol) \$ 9.96

MUNICIPAL PARKING LOTS - CAMPBELL STREET

In 1966 the City Council authorized the changing of the free Parking Area at the rear of City Hall in order to give better parking facilities to the shopping public. In 1973 the system was changed to attendant-type control from the original gate-type control.

In 1974, the expenditure for the above amounted to \$4,047.86 and was made up as follows:

Journal Vouchers (Payroll).....	\$ 683.42
Journal Vouchers (Machinery)	409.50
Journal Vouchers (Pension Funds)	15.22

Journal Vouchers (Materials).....	\$ 2.50
Stan Cassidy Ltd. (Electrical Repairs to Building)	173.36
Capital Free Press (Parking Tickets)	108.86
Minister of Finance - Provincial Taxes	2,555.00
Kenneth Hallett - Damages to Fence	<u>100.00</u>
	\$ 4,047.86

In addition, a new Parking Area on Campbell Street, east of Westmorland Street was constructed in 1970.

The 1974 expenditure amounted to \$2,754.70 and was made up as follows:

Journal Vouchers (Payroll)	\$ 326.42
Journal Vouchers (Machinery) ...	332.00
Journal Vouchers (Pension Funds)	6.03
Journal Vouchers (Materials) ...	10.25
Minister of Finance - Provincial Taxes	<u>2,080.00</u>
	\$ 2,754.70

ARCTIC RINK SITE PARKING LOT

In 1969, the Free Parking Area situated on the south side of Campbell Street, just east of Carleton Street was changed to a metered parking site.

The 1974 expenditure was \$3,574.51 and is made up as follows:

Journal Vouchers (Payroll, Machinery, Pensions, Etc.).....	\$ 402.51
Minister of Finance - Provincial Taxes	<u>3,172.00</u>
	\$ 3,574.51

This area is the site of the new library presently under construction.

BEAVERBROOK RINK

The expenditure under this heading was \$25.25 and is made up as follows:

Journal Vouchers (Regular Gas) ...\$ 25.25

TOURIST AND INDUSTRY

Expenditure \$ 988.20

The above expenditure is made up as follows:

Journal Vouchers (Payroll).....	\$ 864.70
Journal Vouchers (Machinery)	91.00
Journal Vouchers (Pension Funds)	<u>32.50</u>
	<u>\$ 988.20</u>

ADMINISTRATION OF JUSTICE

Expenditure \$ 381.01

The above expenditure is made up as follows:

Journal Voucher (Gas, Oil, Diesel)	\$ 94.08
Journal Voucher (Payroll)	143.87
Journal Voucher (Pension Funds)	6.75
Journal Voucher (Machinery)	8.00
Journal Voucher (City Decals)	40.85
Journal Voucher (Cement)	85.06
Seaboard Surveys (Prints)	<u>2.40</u>
	<u>\$ 381.01</u>

PAINT DEPARTMENT

Expenditure \$ 600.00

The above expenditure of \$600.00 was for 1974 Space Rental at City Yard - Dundonald Street.

PUBLIC TRANSIT

Expenditure \$ 200.00

The above expenditure of \$200.00 was for Space Rental at City Maintenance Depot.

L.I.P. - KILLARNEY ROAD

Expenditure \$ 312.00

The above expenditure of \$312.00 was for the following:

Journal Voucher (Machinery)..... \$ 312.00

LAND ACCOUNT (ASSEMBLY)

Expenditure \$ 60,846.79

The above expenditure was made up as follows:

Seaboard Surveys Ltd. (Survey-Lincoln Area)	\$ 6,147.79
Hoyt, Mockler, Allen, Dixon & Godin-Purchase of Cliff Property	16,000.00
Land Securities Ltd. - Refund Re Lot #6	36,849.00
Bridon Ltd. - Demolition of Graham Forrest Property	<u>1,850.00</u>
TOTAL	<u>\$ 60,846.79</u>

LAND ACCOUNT - INDUSTRIAL PARK

Expenditure \$174,776.14

The above expenditure under this heading is primarily made up of Survey Work by Seaboard Surveys and Installation of Services on Whiting Road, by Fredericton Housing.

Fredericton Housing constructed the following:

80' - of 6" Ductile Water Main
4' - of 8" Ductile Water Main
2646' - of 10" Ductile Water Main
896' - of 8" Domestic Sewer Main
1635' - of 10" Domestic Sewer Main
152' - of 18" Concrete Culvert

The overall expenditure charged to this account is made up of the following:

Journal Vouchers (Payroll, Pensions, Machinery, Materials) ..	\$ 70,997.59
Seaboard Surveys Ltd. (Survey Work)	12,645.47
Minister of Finance (Taxes on Land)	7,825.71
Forbes & Sloat Ltd. (Gravel)	40,647.99
Fredericton Housing Ltd. (Grubbing & Removal of Stumps) ...	7,294.10
Fredericton Housing Ltd. (Installation of Water-Whiting Rd.)	17,798.40
Fredericton Housing Ltd. (Installation of Domestic Sewer-Whiting Road)	16,033.50
John Kilburn & Sons Ltd. (Holdbacks-MacKenzie Rd.)	964.30
Miscellaneous (Stakes, Backing Brick, Etc.)	<u>569.08</u>
	\$174,776.14

LESS CREDITS:

Seaboard Surveys (Overcharge) ...	4,012.89
Journal Voucher (Materials)	<u>2,606.66</u>

NET EXPENDITURE \$168,156.59

The Gravel Road Construction was carried out by City Crews.

DESIGNATED PROVINCIAL ROUTES

In 1974, several Provincial Routes were upgraded. Following is a list giving the sections upgraded and the length and type of surface placed:

<u>Location</u>	<u>Length & Type of Surface</u>
Killarney Rd.-Various locations	5,433 Feet of Padding
Killarney Rd.-Existing Curb & Pavement to City Line near Killarney Lake	6,557 Feet of Chip Seal
Bridge St.-Coronation St. to Provincial By-Pass	1,417 Feet of 3/4" Dense Mix
Union St.-Rte. 105-Nashwaak River to Pine Street	3,743 Feet of Slurry Seal
Waterloo Row-Rte. 12-Forest Hill Access to C.N.R. Subway	3,059 Feet of Slurry Seal
Woodstock Rd.-Rte. 12-Odell Avenue to Hanwell Road	3,569 Feet of Slurry Seal
Woodstock Rd.-Rte. 12-Golf Club Road to T.C.H.	8,789 Feet of Slurry Seal

The total expenditure of \$73,836.61 was made up as follows:

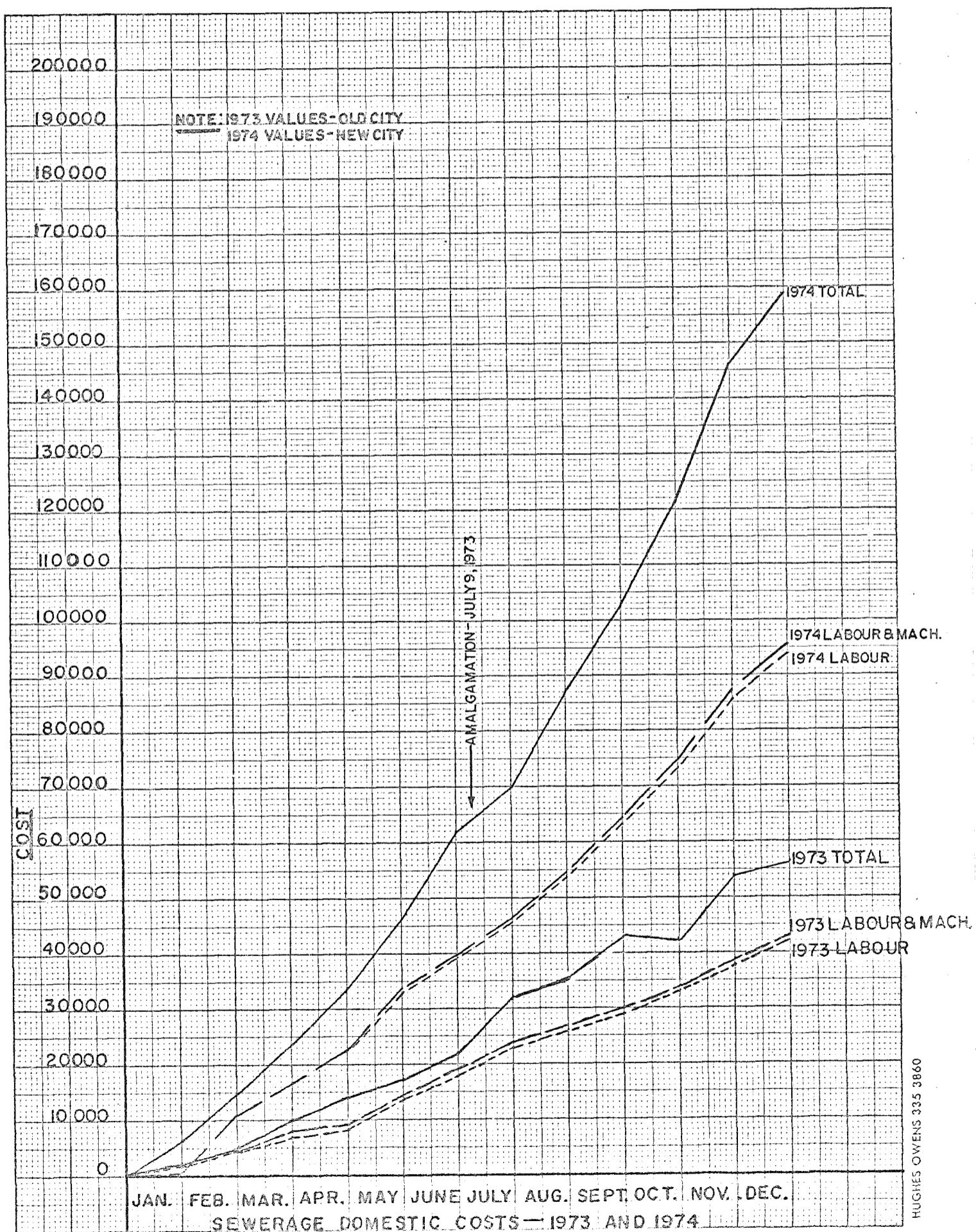
Journal Vouchers (Payroll, Machinery, Pension Funds)	\$ 4,500.49
Gorman Construction Co. Ltd. (Asphalt)	22,376.90
Forbes & Sloat Ltd. (Crushed Rock)	2,054.80
Flintkote Co. of Canada Ltd. (Chip Seal)	10,490.46
Flintkote Co. of Canada Ltd. (Slurry Seal)	<u>34,413.96</u>
 GROSS EXPENDITURE	\$ 73,836.61
 LESS CREDIT	<u>73,836.61</u>
 NET EXPENDITURE	\$ <u>-</u>

The above credit was for the following:

Province of New Brunswick (Cost of Upgrading Provincial Routes)	\$ 73,836.61
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DOMESTIC SEWER

Labour	\$ 93,805.47
Hired Trucks & Machinery	1,713.00
City Machinery Costs	22,837.25
Material Costs	90,652.43
F.A.P.C. Sewerage Treatment	<u>305,852.77</u>
 GROSS EXPENDITURE	\$514,860.92



LESS CREDITS \$ 48,780.89

NET EXPENDITURE \$ 466,080.03

The credit of \$48,780.89 was made up as follows:

Material, Labour & Supplies for House Connections	\$ 42,012.88
Journal Vouchers (Material Out, Inter. Dept. Use of Machinery) .	<u>6,768.01</u>
	<u>\$ 48,780.89</u>

New Customers connected to the City Sewer System in 1974 209.

All Dead End Sewer Mains were cleaned and flushed in 1974.

The Fredericton Area Pollution Control Commission (F.A.P.C.) was formed in 1968 and work commenced on Pollution Control of Sewerage for the Fredericton Area, including Nashwaaksis, Marysville, Fredericton and Barker's Point. This system was put in operation on October 10, 1970.

The Fredericton Domestic Sewer System consists of approximately 117 miles of Sewer Mains and is made up as follows:

Size	Silver- wood	LENGTH OF MAINS IN MILES					Totals
		Na'sis	M'ville	B.Point	F'ton		
4"	-	0.098	-	-	-	0.098	
6"	-	0.874	0.195	-	0.020	1.089	
6" F.M.	-	-	0.335	-	0.930	1.265	
8"	2.743	15.031	8.962	4.458	57.039	88.233	
8" F.M.	-	-	0.195	-	0.040	0.235	
10"	0.090	1.561	0.377	0.176	4.449	6.653	
12"	-	1.581	0.625	1.078	7.540	10.824	
14"	-	0.426	-	-	-	0.426	
14" F.M.	-	-	0.328	-	-	0.328	
15"	-	1.331	0.311	0.108	1.630	3.380	
16"	-	0.038	-	-	0.120	0.158	
18"	-	0.019	0.839	-	1.610	2.468	
24"	-	-	-	-	0.540	0.540	
30"	-	-	-	-	0.200	0.200	
36"	-	-	-	-	0.890	0.890	
	2.833	20.959	12.167	5.820	75.008	116.787	

NOTE: Mileages for Silverwood, Nashwaaksis, Barkers Point and Marysville are approximate only due to measurement from plans.

The above mileages do not include sewer mains at the Exhibition Grounds, University of New Brunswick, and St. Anne's Point on the Woodstock Road.

The Fredericton Area Pollution Control Commission Collector Sewer System constructed in 1969 and 1970 is not included in the above mileages. The approximate number of miles of this system is 7.1 and is made up of the following:

LENGTH - MILES

Size	*F'ton North	F'ton South	Total
8"	-	0.073	0.073
10"	-	0.210	0.210
10" Plastic F.M.	0.114	-	0.114
10" F.M.	-	0.189	0.189
12"	-	0.168	0.168
15"	-	0.288	0.288
16" Hyprescon F.M.	0.761	-	0.761
18"	-	0.323	0.323
18" F.M.	0.057	-	0.057
20"	0.691	-	0.691
20" Polyethylene Series 80	-	0.404	0.404
21"	0.721	0.204	0.925
22" Polyethylene Series 60	-	0.164	0.164
24"	1.311	-	1.311
30"	0.589	-	0.589
36"	0.108	0.432	0.540
42"	0.257	-	0.257
48"	0.040	-	0.040
	4.649	2.455	7.104

* Fredericton North includes former Nashwaaksis, Devon, Marysville and Barkers Point.

Following is a list of vehicles used and charged to "Domestic Sewer" showing a comparison of repair charges for 1973 and 1974, including tires and tubes:

Name of Vehicle	Year Purchased	1973 Repairs	1974 Repairs
Mercury 1/2 Ton #14	1972	\$ 403.15	\$ 519.98
Ford 3/4 Ton #252	1974	-	407.64
		<u>\$ 403.15</u>	<u>\$ 927.62</u>

The following vehicle was purchased in 1974 and charged to Domestic Sewer:

1 - Ford 3/4 Ton Pick-Up

Cost \$3,200.00

WATER

There are at present 22 wells in the City of Fredericton Water System (19 active wells, 2 test wells, and 1 well being re-activated in 1975).

ACTIVE WELLS - NORTH SIDE OF ST. JOHN RIVER:

Well	Location
Maple Street Well	110 yards west of intersection of St. Marys St. and Maple St.

Well	Location
Cliffe Street Well	10 yards east of intersection of Dedham St. and Cliffe St. This well is a standby service only due to marginal Chemical Characteristics.
Carleton Well 1963	200 yards north of former City Line and 400 yards easterly from Highland Avenue.
Killarney Well	10 yards west of Killarney Rd. and 900 yards north of Maple St. and St. Marys St. intersection.
Nashwaaksis #2	50 yards west of intersection of Maple St. and Oak Ave. on Maple St.
Nashwaaksis #3	35 yards west of the intersection of Maple St. and Douglas Ave. on Maple St.
Sunset Drive Well	50 yards southwest of the intersection of Sunset Dr. and McNeil Ave. on Sunset Dr.
Marysville #1	450 yards northwest of the intersection of Tower Road and Cowperthwaite St. on Tower Rd.
Marysville #2	170 yards northwest of the intersection of Tower Road and Cowperthwaite St. on Tower Rd.
Marysville #3	50 yards west of the southerly intersection of Minue Terrace and McGloin St. on Minue Terr.
Barker's Point #1	250 yards east of intersection of Greenwood Dr. and Victory Ave. on Greenwood Dr.
Barker's Point #2	100 yards east of intersection of Greenwood Dr. and Dewitt Acres on Greenwood Dr.

ACTIVE WELLS - SOUTH SIDE OF ST. JOHN RIVER:

Well	Location
Fredericton Well #1	gravel walled well located in Wilmet Park, 60 yards southeast of Rookwood Ave. and Woodstock Road intersection.
Fredericton Well #3	gravel walled well located in Wilmet Park, 100 yards southwest of Odell Ave. and Woodstock Rd. intersection.
Fredericton Well #4	gravel walled well located in Wilmet Park, 233 yards southeast of Rookwood Ave. and Woodstock Rd. intersection and 260 yards southwest of Odell Ave. and Woodstock Rd. intersection.

<u>Well</u>	<u>Location</u>
Fredericton Well #5	gravel walled well located on Woodstock Rd. on the south bank of the St. John River, west of the R.C.M.P. "J" Division Headquarters, 190 yards northwest of Rookwood Ave. and Woodstock Rd. intersection.
Hanwell Road Well	rock walled well located on the southeasterly side of Cameron Ct., 187 yards south of the Cameron Ct. and Hanwell Road intersection. This supplies approximately three quarters of the residences on Hanwell Road.
Silverwood #1	30 yards north of intersection of the T.C.H. and Orchard Dr. on the T.C.H.
Silverwood #2	50 yards south of intersection of Mountain Dr. and Fairview Drive.

TEST WELLS ONLY:

<u>Well</u>	<u>Location</u>
Nashwaaksis #4	50 yards east of the intersection of Teak Dr. and Bird Ave. on Teak Dr.
Silverwood #4	Southeast of intersection of T.C.H. and MacIntosh Brook, 300 yards south of T.C.H. and 100 yards east of MacIntosh Brook.

WELL TO BE REACTIVATED IN 1975:

<u>Well</u>	<u>Location</u>
Nashwaaksis #1	50 yards west of the intersection of Fulton Avenue and Maple Street.

The Water Account includes all expenditures other than Capital Expenditure for Water.

The Water Costs for the City of Fredericton are divided as follows:

1)Water Administration (Salaries of Office Staff, Office Equipment, Billing, Collecting and Meters)	\$ 102,921.72
2)Water Ordinary	409,469.58
3)Water Pumping Station	167,187.79
4)Amortization Costs	148,998.00
5)Interest Charges	<u>172,324.00</u>

GROSS EXPENDITURE ..\$1,000,901.09

*LESS CREDITS 88,834.24

NET EXPENDITURE \$ 912,066.85

* Credits found under individual headings.

(1). WATER ADMINISTRATION:

GROSS EXPENDITURE \$102,921.72

LESS CREDITS 10,000.00

NET EXPENDITURE \$ 92,921.72

The above credit is made up as follows:

Journal Voucher - Proportion of Salary (L.P. MacNeill)	\$ 4,000.00
Journal Voucher - Proportion of Salary (E.L. Coy)	<u>6,000.00</u>
	<u>\$ 10,000.00</u>

The expenditure for Billing and Collecting was
\$79,525.99 and is made up as follows:

Journal Vouchers (Payroll, Pensions)	\$ 11,689.07
City of F'ton (City Pension- Payrolls)	1,354.32
Unemployment Ins. Commission ..	629.98
Salaries	33,674.95
Rental of Office Space	3,828.00
Printing (Meter Cards, Water Bills, Notices)	1,806.88
Receiver General of Canada (Canada Pension, Payrolls, Postage, Meter Post Cards)	5,188.82
Purchases (Office Supplies) ...	1,769.18
Service on Machines	330.46
N.B. Telephone (P.B.X. Charges)	576.00
I.A.C. (Payment on NCR 400) ...	5,671.39
Convention & Seminar Expenses .	496.57
NCR (Machinery Rental), Jur-na-rol Material, Etc.)	12,364.65
The Daily Gleaner (Notices) ...	<u>145.72</u>
	<u>\$ 79,525.99</u>

METERS:

On December 31, 1974 there were 6,580 water services on meter and 2,899 on Flat Rate, making a total of 9,479.

The labour cost per meter for installing, reading, etc. was \$3.99 for 1974.

592 meters were installed in 1974, 159 regular meters changed to TRT, and 12 ARB meters changed to TRT.

In 1974, 22 discontinued services were excavated and shutoff at the main, 65 stopped meters replaced and 31 frozen meters replaced.

In 1974, all meters were read quarterly and billed quarterly during the year.

Meters In Stock December 31, 1974:

Size	TO BE REPAIRED			Total
	ARB	Regular	TRT	
1/2"	3	6	4	22
5/8"	0	6	388	456
3/4"	1	6	7	15
1"	1	3	1	5
1 1/4"	0	3	0	3
1 1/2"	0	0	13	17
2"	0	2	0	3
3"	0	1	0	1
4"	0	1	0	1

(2). WATER ORDINARY:

The expenditure under this heading was as follows:

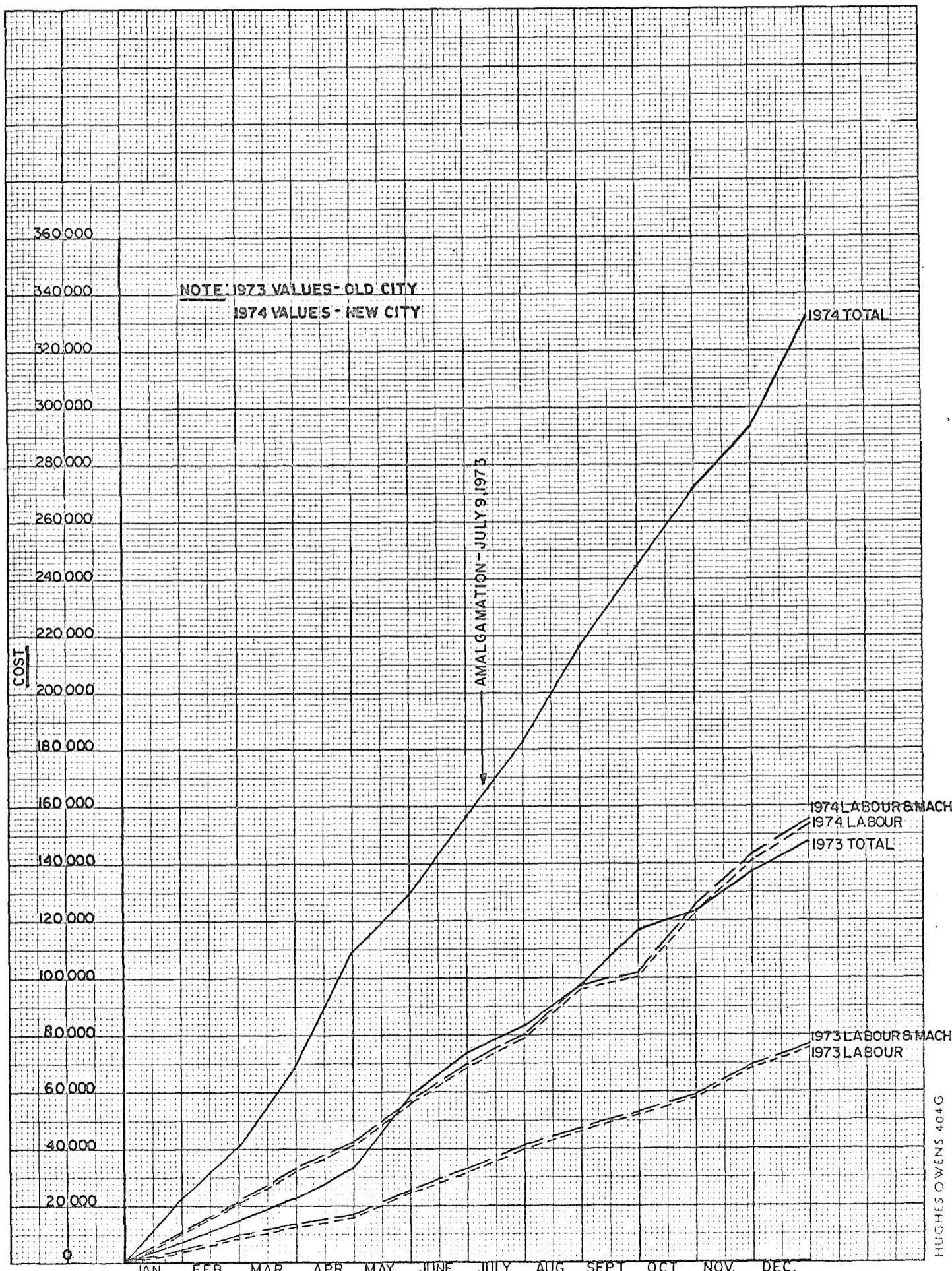
GROSS EXPENDITURE	\$ 409,469.58
LESS CREDITS	<u>77,693.27</u>
NET EXPENDITURE	<u>\$331,776.31</u>

The above credits are made up as follows:

Hydrants (Maintenance & Installation)	\$ 6,397.02
Meters (Maintenance & Installation)	7,036.85
Journal Vouchers (Lead, Water Boxes, Rods, Material Out, Corporation Stock, Copper, Inter. Dept. Use of Machinery)...	14,099.99
Repairs to Water Services, Water Boxes, and Water	
Hookup Charges	43,031.74
Thawing Services (Sprinklers & Lines)	15.96
Petrofina Canada Ltd. (Credit on Drums)	54.00
MacLaren Atlantic Ltd. (Invoice Corrections)	6,509.47
N.B.E.P.C. (Corrections on Charges)	<u>548.24</u>
	\$77,693.27

The Gross Expenditure is made up as follows:

City Payrolls (Well Repairs).....	\$ 5,664.64
City Payrolls for Hydrants (Labour)	12,442.33
City Payrolls for Hydrants (Maintenance)	8,679.35
City Payrolls for Meters (Repairs)	5,272.12
City Payrolls for Meters (Reading)	8,339.18



City Payrolls for Meters	
(Installation)	\$ 12,649.65
City Payrolls for Water	
(Installation)	21,621.37
City Payrolls for Water	
(Maintenance)	62,629.58
City Payrolls for Lincoln Rd.	
Pumping Station	2,156.93
City Payrolls for Smythe St.	
(Booster Station)	2,177.88
City Payrolls for Montgomery St.	
(Booster Station)	2,143.86
City Payrolls for Forest Hill	
(Booster Station)	2,027.61
City Payrolls for Nashwaaksis	
(Booster Station & Wells)	<u>4,638.14</u>

TOTAL PAYROLLS. \$150,442.64

Hired Machinery Charges	1,962.10
Vehicle Repair (Excluding	
Shop Labour)	3,692.48
City Machinery Charges	29,088.25
Materials	120,270.52
Hydrants (Maintenance &	
Installation Materials)	32,545.65
Meters (Maintenance &	
Installation Materials)	<u>71,467.94</u>

GROSS EXPENDITURE \$409,469.58

The following Sprinklers were installed in 1974:

- (1) Wisco Ltd. - 158 Clark St.
- (2) City of Fredericton - York Arena
- (3) Justice Building - Queen St.
- (4) Pyramid Homes - Wilsey Rd.
- (5) Cummings Housing - Motel - Regent St.
- (6) Mack Maritime - Mack Rd.
- (7) E.E. McCoy Ltd. - 55 Hubbard Rd.
- (8) E.E. McCoy Ltd. - K.& R. Precision Instruments- Hilton Rd.
- (9) E.E. McCoy Ltd. - Hutt Band - Hilton Rd.

There are at present (December 31, 1974) 107 Sprinkler Systems in the City.

There are in the City as of December 31, 1974, 1071 Hydrants, broken down into the following:

Fredericton North -	125
Fredericton South -	561
Nashwaaksis -	188
Marysville -	113
Barker's Point -	62
Silverwood -	<u>22</u>
	1071

Hydrants were installed at the following locations in 1974:

<u>Location</u>	<u>Number</u>
McKeen St.	1
Neville St.	3
Gibson St.	2
Whiting Rd.	4
Fulton Ave.	3
Preston Dr.	1
Shadowood Estates	6
Southwood Park - Wetmore, Chandler, Bliss, Doyle, Colebrook	9
	29

Distribution System:

New Services Installed in 1974	218
Old Services Relayed in 1974	26
Frozen Services that had to be thawed	29

The Fredericton Distribution System consists of 124.359 miles of Water Main, made up as follows:

Size	LENGTH OF MAINS - MILES					
	M'ville	Na'sis	B. Point	Silver- wood	F'ton	Total
1"	0.989	-	-	-	-	0.989
1 1/4"	-	0.095	-	-	-	0.095
1 1/2"	0.076	0.045	-	-	-	0.121
2"	-	0.096	-	0.096	-	0.192
3"	-	-	-	-	0.270	0.270
4"	0.468	2.106	-	1.301	6.378	10.253
6"	6.841	10.649	2.379	2.031	32.897	54.797
8"	2.225	7.531	0.530	0.187	18.814	29.287
10"	1.358	3.038	3.208	-	9.834	17.438
12"	0.383	0.170	0.019	-	8.880	9.452
14"	-	-	-	-	0.330	0.330
18"	-	-	-	-	0.980	0.980
Unknown	0.155	-	-	-	-	0.155
	12.495	23.730	6.136	3.615	78.383	124.359

This does not include the water mains installed by the National Defence at the Exhibition Grounds, University of New Brunswick, St. Anne's Point Barracks on the Woodstock Rd. and the low rental housing development in Fredericton North.

The supply system consists of 0.36 miles of 14" Cast Iron Pipe, extending from the Well Site at Wilmot Park to the Pumping Station; 0.16 miles of 12" Cast Iron Pipe extending from the Well on the South bank of the St. John River on Woodstock Road to the Well Site of #1 Well at Wilmot Park; and 0.10 miles of 15" Steel Pipe extending from the Intake Pier in the St. John River to the Pumping Station. This latter supply had not been used for Domestic Consumption from 1957, until 1974 when power failures caused by the Queen St. fire in March, required use of the emergency supply.

Following is a list of vehicles used and charged to "Water Ordinary" showing a comparison of repair charges for 1973 and 1974, including tires and tubes:

Name of Vehicle	Year Purchased	1973 Repairs	1974 Repairs
Chev. 1/2 Ton #2	1969	\$ 569.82	\$ 723.26
Ford Van #5	1971	1,124.62	1,894.82
G.M.C. 1/2 Ton #7	1972	56.47 CR.	179.26
Dodge 1/2 Ton #12	1974	-	355.73
Ford 1/2 Ton #32	1966	240.42	396.14
G.M.C. Van #35	1971	252.85	242.38
Ford 1/2 Ton #251	1974	-	415.85
Dodge 1/2 Ton #301	1974	-	182.75
		\$2,131.24	\$4,390.19

The following items of machinery were purchased in 1974 and charged to Water:

1 - Ford 1/2 Ton Pick-Up

Cost \$3,000.00

1 - Dodge 1/2 Ton Pick-Up

Serial #13AB4S116690

Cost \$3,330.00

8% Tax 266.40

\$3,596.40

1 - Dodge 1/2 Ton Pick-Up

Serial #D13AB4S116689

Cost \$3,330.00

8% Tax 266.40

\$3,596.40

(3). WATER PUMPING STATION:

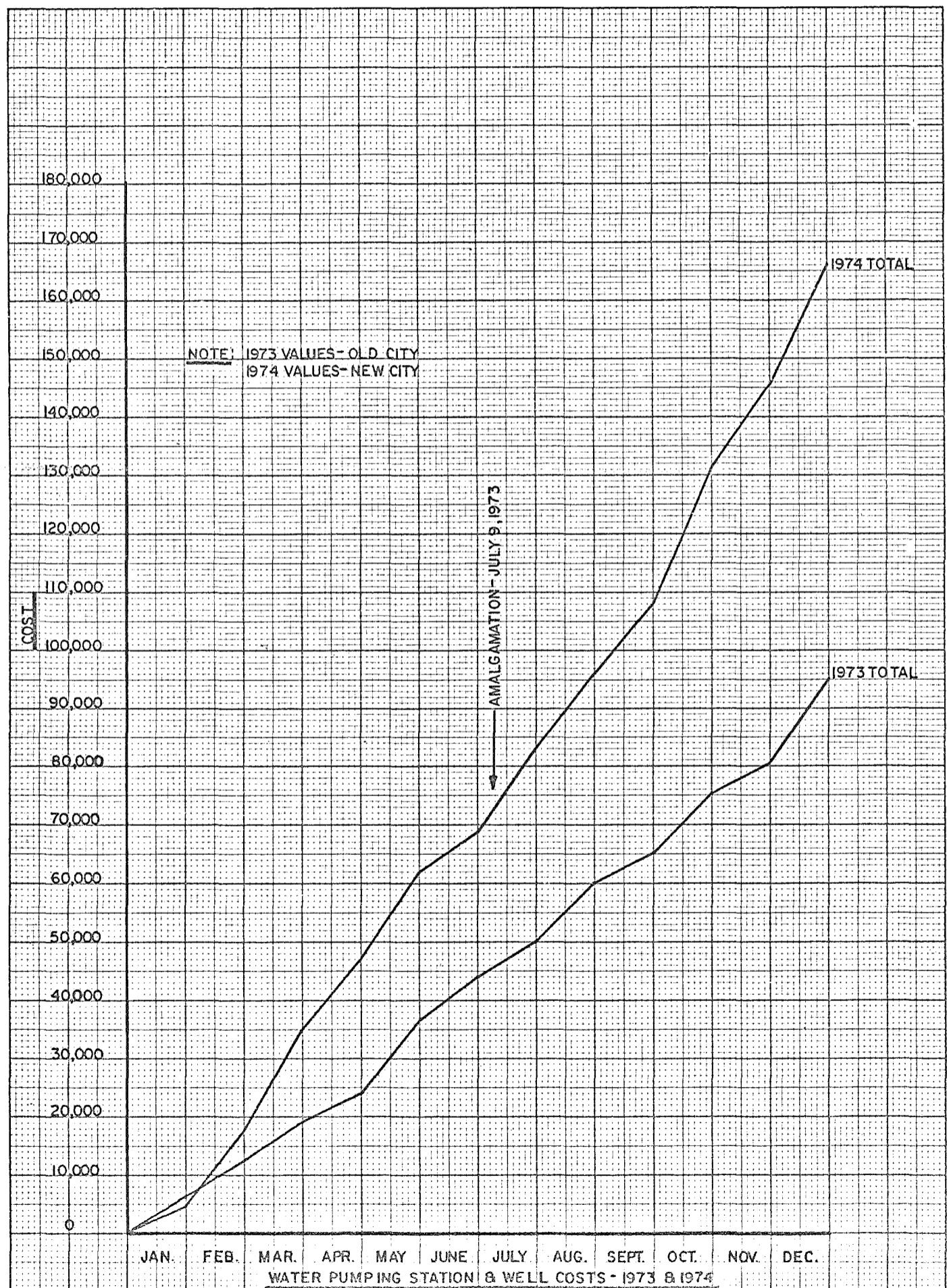
GROSS EXPENDITURE..... \$ 167,187.79

LESS CREDITS 1,140.97

NET EXPENDITURE \$ 166,046.82

The above expenditure is made up as follows:

City Payrolls for employees at F'ton Pumping Station (Includes Carleton Pumps)	\$ 49,605.35
Labour charged to City Wells ...	20,660.17
City Labour for Plant Maintenance	1,185.21
Material Charges	91,646.77



Insurance	\$ 1,170.93
Taxes	<u>2,919.36</u>
	\$ 167,187.79

LESS CREDITS:

Canadian Industries Ltd.	
(Chlorine Cylinders Returned) ..	\$ 1,125.00
Petrofina Canada Ltd.	9.00
DeWolfe Hardware (Invoice Correction)	<u>6.97</u>
	<u>1,140.97</u>
NET EXPENDITURE	<u>\$ 166,046.82</u>

The material cost of \$91,646.77 is made up as follows:

N.B.E.P.C. (Power at Wells) ...	\$ 39,436.44
N.B.E.P.C. (Power at Plant) ...	15,026.95
Materials (Wells)	8,923.21
Maintenance of Wells	6,836.09
Heating Fredericton Plant	1,967.59
Supplies for F'ton Plant	823.84
Diesel & Lubricants for F'ton Plant	228.11
Workmen's Compensation Assess- ment (Fredericton Plant)	987.95
Misc. (Fredericton Plant)	876.63
Materials Used in Plant Eqp. Maintenance	1,201.03
Other Maintenance Charges	2,299.18
Chlorine for Purification & Treatment	2,375.48
Chlorinator Parts	757.77
H.T.H. Tablets	346.90
Other Chemicals for Purification & Treatment	<u>9,559.60</u>
	<u>\$ 91,646.77</u>

Heating:

Following is the yearly consumption and costs of heating of the Fredericton Pumping Station Plant for the last ten years:

Year	Gallons Furnace Oil	Cost
1965	5,067.2	\$ 707.75
1966	5,583.1	769.80
1967	3,961.7	539.84
1968	6,121.5	837.63
1969	6,032.6	869.90
1970	5,829.6	840.79
1971	5,125.0	810.45
1972	5,547.0	913.02
1973	4,895.0	961.12
1974	5,774.0	1,836.79

COMPARISON OF WATER PUMPED AND COSTS
FOR FREDERICTON SOUTH (FORMER BOUNDARY) FOR
THE LAST TWENTY YEARS

Year	Imp. Gallons Produced	Production Expenditures	Production Cost Per 1000 Gallons
1955	376,591,000	\$ 48,063.07	12.7 cents
1956	448,096,000(13 mos)	41,351.18	9.2 cents
1957	469,185,000	42,465.50	9.0 cents
1958	454,765,000	42,888.56	9.4 cents
1959	487,704,000	47,923.19	9.8 cents
1960	520,081,000	50,280.09	9.6 cents
1961	510,250,000	45,081.88	8.8 cents
1962	499,880,000	48,298.53	9.7 cents
1963	519,168,000	48,441.10	9.3 cents
1964	544,650,000	52,431.23	9.6 cents
1965	605,170,000	50,915.76	8.4 cents
1966	634,501,000	50,519.49	8.0 cents
1967	688,514,000	52,749.40	7.9 cents
1968	735,296,000	64,617.14	8.8 cents
1969	730,089,200	69,831.20	9.5 cents
1970	796,421,300	72,282.38	9.1 cents
1971	841,712,300	76,827.46	9.1 cents
1972	921,309,300	81,585.18	8.9 cents
1973	941,502,100	81,478.87	8.66 cents
1974	962,420,800	105,320.82	10.94 cents

The columns in the preceding comparison, showing Imperial Gallons produced, does not include water used from Wells in the other sections of the City.

The total amount of water pumped from January 1, 1974 to December 31, 1974 for the entire City was 1,393,743,620 Imperial Gallons divided as follows:

Fredericton South	962,420,800
Fredericton North	106,441,520
Nashwaaksis	161,578,900
*Marysville	105,120,000
Barker's Point	41,884,500
Silverwood	<u>16,297,900</u>
TOTAL	<u>1,393,743,620</u>

* No metering system for Marysville (estimated at 200 I.G./Min./Day)

The total net water expenditure (operating) for the City from January 1, 1974 to December 31, 1974 was determined from the following:

Source of Supply	\$ 76,481.96
Power & Pumping	69,507.36
Maintenance of Eqp.(Plant)	4,622.52
Purification & Treatment	11,914.75
Transmission & Distribution	24,963.58
Transmission & Distribution (Maintenance)	210,821.37
Other (Taxes & Insurance)	<u>8,819.55</u>
	<u>\$407,131.09</u>



Therefore, the net operating cost to pump and deliver to the customer 1,000 Imperial Gallons of Water from January 1, 1974 to December 31, 1974 was:

$$\frac{\$407,131.09}{1,393,743.62} = 29 \text{ cents}$$

All the preceding costs shown under "Water Pumping Station" and "Water Ordinary" do not include bond payments or sinking fund charges.

The cost of 1,000 gallons of water delivered including principal and interest is as follows:

Total Net Administration &	
Operating Costs	\$ 590,744.85
Principal and Interest	<u>321,322.00</u>
TOTAL COSTS .. <u>\$ 912,066.85</u>	

Total Cost of Water Per Thousand Gallons:

$$\frac{\$912,066.85}{1,393,743.62} \text{ Gal.} = 65 \text{ cents}$$

Principal and Interest Costs:

$$\frac{\$321,322.00}{1,393,743.62} \text{ Gal.} = 23 \text{ cents}$$

Administration and Operating Costs:

$$\frac{\$590,744.85}{1,393,743.62} \text{ Gal.} = 42 \text{ cents}$$

Following is a table showing a comparison of net operating costs, total cost, principal & interest costs, and administration and operating costs per 1,000 Gallons from 1966 to 1974:

COSTS PER 1000 GALLONS IN CENTS				
Year	Net Operating	Total Cost	Principal & Interest	Administration & Operating
1966	15.8	44.9	25.8	19.1
1967	18.3	47.8	25.5	22.3
1968	18.9	48.9	24.8	24.1
1969	29.3	54.1	17.7	36.4
1970	19.6	45.3	19.1	26.2
1971	21.2	50.1	22.3	27.8
1972	24.0	48.9	18.3	30.6
1973	18.8	47.5	18.2	29.3
*1974	29.0	65.0	23.0	42.0

* Values from 1966 to 1973 are for pre-amalgamated City only while values for 1974 are for the amalgamated City.

The Water Pumping Station is under the supervision of Plant Superintendent, Mr. George Parker.

(4). HYDRANT REVENUE:

Hydrant Rental for Fire Protection amounted to \$296,604 in 1974.

WATER AND SEWER REVENUE - 1974

WATER:

Expenditure	F'ton	M'ville	Na'sis	B.Point	Silver-wood	Total
Water Pumping Station	112,446.68	27,130.40	9,895.15	5,690.58	7,363.78	162,526.59
Water Ordinary	104,840.12	20,047.42	44,886.54	14,167.08	5,291.98	189,233.14
Hydrants	20,737.69	14,170.53	9,780.18	1,721.42	141.99	46,551.81
Meters	80,432.97	1,845.91	5,200.36	368.49	2,844.31	90,692.04
Water Office Admin.	79,525.99	-	-	-	-	79,525.99
Salaries	13,395.73	-	-	-	-	13,395.73
Principal & Interest	165,099.00	-	93,742.00	33,172.00	29,309.00	321,322.00
Taxes & Insurance	8,374.17	64.93	78.00	143.86	158.59	8,819.55
TOTAL NET (WATER)	\$584,852.35	63,259.19	163,582.23	55,263.43	45,109.65	\$912,066.85

REVENUE:

	F'ton	M'ville	Na'sis	B.Point	Silver-wood	Total
Water Ordinary	428,365.20	46,545.00	60,914.79	20,803.75	7,682.60	564,311.34
Meters	29,141.63	88.28	2,027.23	55.29	172.05	31,484.48
SUB-TOTAL REVENUE (WATER)	\$457,506.83	46,633.28	62,942.02	20,859.04	7,854.65	\$595,795.82

Plus Hydrant Revenue for Entire City - \$296,604

Therefore, TOTAL REVENUE (WATER) = \$892,399.82

DOMESTIC SEWER:

Expenditure	F'ton	M'ville	Na'sis	B.Point	Silverwood	Total
Sewerage Domestic	78,140.33	23,201.27	34,283.30	22,019.41	1,162.50	158,806.81
F.A.P.C.C. Sewage Treatment	189,043.15	48,963.05	58,708.65	9,137.92	1,420.45	307,273.22
Principal & Interest	48,325.00	-	33,728.00	5,878.00	10,235.00	98,166.00
TOTAL (DOMESTIC)	315,508.48	72,164.32	126,719.95	37,035.33	12,817.95	\$564,246.03
REVENUE:						
Sewerage Domestic	\$303,432.26	24,043.41	28,058.84	10,389.19	4,444.55	<u>\$370,368.25</u>

Accompanying this Report is the Report of Mr. E. W. Hagerman, City Analyst, on the Fredericton Water Supply from January 1, 1974 to December 31, 1974.

Respectfully submitted,



CITY ENGINEER

FREDERICTON WATER SUPPLY

1974

The Saint John River flowing approximately west to east, divides Fredericton into north and south areas.

The north area is divided into four sub-divisions viz (1). Carleton (2). Nashwaaksis (3). Barker's Point and Marysville.

Carleton Sub-division is supplied with water from four wells (total capacity 400 I.G.M.). The wells pump in various combinations, delivering the water to a one million gallon reservoir and to the pipe grid. A chlorine residual of 0.1 to 0.15 ppm is maintained in the pump discharge.

Nashwaak Sub-division has three working wells (520 I.G.M. total) plus a fourth well being rejuvenated (225 I.G.M. expected).

These wells, working singly or in multiple, pump to the pipe grid and into two 300,000 gallon reservoirs.

Continuous chlorination is not practised. In case of emergency, a liquid, portable chlorinator is on hand.

Marysville Sub-division has three working wells (600 I.G.M. total). These wells pump into the pipe grid and to an old wood stave elevated reservoir. A new concrete reservoir (625,000 gallon) will be in service in 1975. Continuous chlorination is not practised but a liquid portable chlorinator is available.

Barker's Point Sub-division has two wells (300 I.G.M. total). They pump into the pipe grid and to a 250,000 I.G. reservoir.

Continuous chlorination is not practised but a gas chlorinator is connected.

Fredericton South (original City of Fredericton) takes its water supply from four gravel walled wells and Hanwell, a rock walled well.

The gravel walled wells were developed in 1953 (1), 1960 (3), 1961 (4) and 1969 (5). Number 4 well's production has decreased slightly but no changes are apparent in the other three or in Hanwell (drilled in 1967).

The wells are worked single or in multiple depending on the demand of the system, which varies around 2.5 million gallons per day.

None of the Raw waters from the wells 1,3,4, or 5 have produced gas in Lactose Broth, but no gas.

The water is aerated and chlorine is added to the raw well water as it flows into the 400,000 gallon holding well at the Queen St. pumping station. The chlorine dose is adjusted to show a chlorine residual of 0.1 to 0.15 parts per million in the water flowing to the consumer.

Hanwell Well, located in Cameron Court, pumps to a reservoir and supplies customers in the Court and along Hanwell Road. Water from this well is good chemically but occasionally shows coliforms and mould growth in unchlorinated samples. Continuous chlorination is practised. A residual chlorine of 0.1 to 0.15 ppm is maintained.

Silverwood Sub-division has two working wells having a capacity of 8 plus 37 equals 45 I.G.M. total. They deliver water to the system and a reservoir which holds 50,000 gallons.

Normally chlorination is not practised but a portable liquid machine is on hand.

(Sgd.) E. W. HAGEMAN,
CITY ANALYST.

1974

CHEMICAL ANALYSIS OF FREDERICTON WATER
SOUTH WELLS

LOCATION	Mo.- Day	PH.	ALK.	HARD	FE.	MN.	Cl'ide
No. 1 Well	Mar. 5	7.0	58			0.17	
No. 4 Well	May 6	6.7	54			-	
No. 5 Well	Feb. 26					0.80	
No. 5 Well	Mar. 5		52			0.70	
No. 5 Well	Mar. 8					0.80	
No. 5 Well	May 6	7.1	50			0.75	
No. 5 Well	July 3	7.3	49	57	0.05	0.75	4.5
Hanwell Well	Apr. 10	7.6	82	67	0.05	Trace	25.0
Hanwell Well	July 15	7.5	98	58	0.03	Nil	23.0
City Yd. Mary'd. Rd.	Feb. 21	7.7	100	84	0.2	0.2	5.0
Do. Above- Compare	July 22/69	8.0	106	88	0.2	.05-.10	7.0

SOUTH TEST WELLS

Delta Electric	April	7.3	72	26	0.15	Nil	2.0	Vanier Hwy.
Wilsey T. Well	Mar. 14	8.1	139	27	0.1	Nil	24.0	H ₂ S Present
Mercury Motor	Apr. 8	7.7	109	104	0.05	Nil	6.0	Hanwell- Prospect
Carriage Hill Estates	May 31	8.0	115	110	0.40	Nil	2.0	100-170 U.S.G.M.
Harris Well	June 10	8.0	84	80	0.05	Nil	10.5	200 U.S.G.M.

LOCATION	Mo.- Day	PH.	ALK.	HARD	FE.	MN.	Cl'ide	
Rosewood Well	June 13	8.0	97	92	0.05	0.4	6.0	300 U.S.G.M.
Gay Well	June 28	7.6	93	96	0.05	0.10	15.0	210 U.S.G.M.
Boat Club Well	Aug. 9	7.5	94	80	0.05	0.07	13.0	500 I.G.M.

NORTH DOMESTIC

19 Ashfield Street	Feb. 4	7.3	74	-	-	-	7.5	30 Sulfate
114 Legion Drive	Aug. 24	7.7	88	129	.05	Trace	22.0	
17 Calder Street	Jan. 24			124		0.0	25	80 Sulfate

NORTH TEST WELLS

#1 Killarney Road	Sept. 21	7.5	72	67	0.02	Nil	2.5	400 Ft. 250 IGM
#2 Killarney Road	Aug. 21	7.5	70	64	TR.	Nil	3.0	240 Ft. 100 IGM
#2 Killarney Road	Aug. 27	7.8	124	90	TR.	0.1-0.2	12.0	440 Ft. 100 IGM
#7 Heron Road	Dec. 13	7.5	82	58	0.01	0.05	14.0	470 Ft. 130 IGM
#5 Heron Road	Dec. 1	7.5	100	91	0.03	0.30	3.5	450 Ft. 200 IGM

Extracts From United States Treasury Standards

Applicable To Fredericton Water Supply

- (1). A minimum sample of 100 milliliters is collected.
- (2). Five 10 milliliter portions of the 100 milliliter sample are tested.
- (3). Primary plantings are made in Lactose Broth.
- (4). Portions forming gas in Lactose Broth are confirmed in 2% Brilliant Green Bile.

APPLICATION OF TEST:

- (1). Of all the 10 milliliter portions examined per month, not more than 10% shall show positive. (ie. make gas).
- (2). When less than 20 samples per month are examined, one sample may show three positive portions.
- (3). Using a standard sample of five 10 milliliter portions, provides for an estimation of the MOST PROBABLE NUMBER (M.P.N.) of Coliform bacteria per 100 milliliter of sample as shown in the table below.

Negative -	Positive +	When five 10 milliliter portions are tested.
5	0	Less than 2.2 organisms per 100 is the MPN.
4	1	2.2 organisms per 100 is the MPN.
3	2	5.1 organisms per 100 is the MPN.
2	3	9.2 organisms per 100 is the MPN.
1	4	16 organisms per 100 is the MPN.
0	5	More than 16 organisms per 100 is the MPN.

TESTS FOR COLIFORM BACTERIA

1974

The test divides the 5 portions into plus or minus results. Using these results with the table on the preceding page, gives the M.P.N. (Most Probable Number) of Coliform Organisms per 100 milliliter sample.

Date of Sample	Origin Of Sample	No. Of -	No. Of +	MPN per 100 ml.	
<u>JANUARY</u>					
Wed. 9	123 Charlotte St.	5	0	-2.2	
Mon. 14	570 Lincoln Rd.	5	0	-2.2	
Thur. 17	120 Carleton St.	5	0	-2.2	
Tue. 22	308 Highland Ave.	5	0	-2.2	
Tue. 22	170 Friel St.	5	0	-2.2	
					NOTE - Means less than 2.2 organisms per 100 milliliters of sample
<u>FEBRUARY</u>					
Fri. 1	217 Hanwell Rd.	5	0	-2.2	
Wed. 6	Fenton Pony Club	5	0	-2.2	
Mon. 11	UNB Engineering	5	0	-2.2	
Thur. 21	City Depot Maryland Rd.	5	0	-2.2	Planted in Lactose Broth ** Confirmed in 2% B.Green Bile
<u>MARCH</u>					
Fri. 1	Departmental Bdg.	5	0	-2.2	
Fri. 8	Hanwell W.(Raw)	4	1	2.2	
Sat. 16	Hanwell W.(Raw)	4	1	2.2	
Wed. 20	Sobey Mall	5	0	-2.2	
Sat. 23	355 Queen J.Gibson & Son	5	0	-2.2	Using Large Q. water on big fire corner of Queen & Westmorland
<u>APRIL</u>					
Mon. 1	Medical Center	5	0	-2.2	
Wed. 10	Hanwell W.(Raw)	5	0	-2.2	
Mon. 15	727 Irvine St.	5	0	-2.2	
Sun. 21	127 Charlotte St.	5	0	-2.2	

Date of Sample	Origin Of Sample	No. of -	No. of +	MPN per 100 ml.	
<u>MAY</u>					
Mon. 6	#1 Well Raw*	5	0	-2.2	No Growth
Mon. 6	#4 Well Raw	5	0	-2.2	No Growth
Mon. 6	#5 Well Raw	5	0	-2.2	Cloudy in 2 tubes No gas
Mon. 20	#5 Well Raw	5	0	-2.2	Cloud in 5 tubes No gas
Fri. 24	#1 Well Raw	5	0	-2.2	No Growth
Thur. 30	#5 Well Raw	5	0	-2.2	Growth in 5 tubes No gas
*Raw=no chlorine					
<u>JUNE</u>					
Thur. 6	280 Regent	5	0	-2.2	
Fri. 28	#1 Well Raw	5	0	-2.2	
Fri. 28	Plant Effluent	5	0	-2.2	
Fri. 28	#5 Well Raw	5	0	-2.2	Growth in media. Small bubbles in 3-Nil in B.G.B.**
<u>JULY</u>					
Mon. 8	#3 Well Raw	5	0	-2.2	
Thur. 11	#4 Well Raw	5	0	-2.2	
Mon. 15	Hanwell W.Raw	5	0	-2.2	Mould top of 4 tubes
Mon. 15	#510 Hanwell Rd.	5	0	-2.2	No mould or growth
<u>AUGUST</u>					
Thur. 1	Fire Sta.- MacLaren Ave.	5	0	-2.2	
Mon. 5	683 Hanwell Rd.	5	0	-2.2	
Thur. 8	120 Carleton St.	5	0	-2.2	
Sat. 10	K-Mart (Restaurant)	5	0	-2.2	
Sun. 25	62 Alexandra	5	0	-2.2	
<u>SEPTEMBER</u>					
Tue. 3	169 Norfolk Dr.	5	0	-2.2	
Thur. 19	Hanwell W.(Raw)	5	0	-2.2	Mould caps-3 tubes, 48 Hrs.
Mon. 30	York Struct.Steel	5	0	-2.2	
Mon. 30	Royal Bank	5	0	-2.2	
<u>OCTOBER</u>					
Thur. 10	Rural Cemetery Ext.	5	0	-2.2	
Thur. 17	Pony Club	5	0	-2.2	
Sat. 26	29 Parklyn Ct.	5	0	-2.2	
Thur. 31	701 Albert St.	5	0	-2.2	
<u>NOVEMBER</u>					
Tue. 5	Diplomat Motel	5	0	-2.2	
Mon. 11	Raw St. John (Low Lift)	0	5	16+	B.G.B. Plus **
Sat. 16	835 Churchill Row	5	0	-2.2	
Fri. 22	Eng.Bldg.UNB.	5	0	-2.2	

Date of Sample	Origin Of Sample	No. of -	No. of +	MPN per 100 ml.
<u>DECEMBER</u>				
Mon. 16	415 Wetmore-Area	5	0	-2.2
Mon. 16	Flemming Res. City Tire Vanier-Wilsey	5	0	-2.2
Mon. 16	214 Dunn Rd.	5	0	-2.2
Tue. 17	Fire Sta.- MacLaren Ave.	5	0	-2.2
Sat. 21	127 Charlotte St.	5	0	-2.2

COLIFORM TESTS 1974

NASHWAAKSIS

Date of Sample	Origin of Sample	No. of -	No. of +	MPN per 100 ml.
<u>JANUARY</u>				
Thur. 24	17 Calder St.	5	0	-2.2
H ₂ S Smell Hard=124; MN=0; Cl=25; SO ₄ =80				
<u>FEBRUARY</u>				
Tue. 26	#19 Ashfield St. 2 William St.	5	0	-2.2
		5	0	-2.2
<u>MARCH</u>				
Fri. 29	34 Lilac Cres.	5	0	-2.2
<u>APRIL</u>				
Thur. 18	134 Burpee St.	5	0	-2.2
<u>MAY</u>				
Thur. 16	105 Oak Ave.			Suspect sewer leak but it is not as high as #1 Well (39ppm) Chloride 11ppm.
<u>AUGUST</u>				
Tue. 27	114 Legion Dr.	5	0	-2.2

