

# ANNUAL REPORT OF THE ENGINEERING AND PUBLIC WORKS DEPARTMENT

# 1933



February 19th, 1935

Wood delivered from City Yard from December 1st, 1933, to Nov. 31, 1934.

<u>Name</u>	<u>No. of Loads</u>	
Arscott, Samuel	9	
Allen, Roy	3	
Allen, Gordon	4	
Amos, Ward	10	
Allen, Sydney	4	
Ames, Frank	1	
Allen, Wilfred	2	
	<hr/>	33
Belcher, Bert	2	
Booker, Fred	9	
Blizzard, Stephen	5	
Billings, William	2	
Burden, Issac	6	
Boldon, Chas.	8	
Burns, Chas.	8	
Barry, Wm. J.	2	
Brown, W.M.	7	
Bolster, Joseph	2	
Blizzard, Mrs. Olive	1	
Bailey, Douglas	8	
Barrett, Mrs.	2	
Briggs, Mrs. Bernard	3	
Briggs, Frank	8	
Barrett, Gordon	3	
Butcher, Walter	2	
Barrett, Wm.	1	
Bowling, James	1	
	<hr/>	80
Cole, Herbert	10	
Cooper, Mrs.	10	
Corey, Mrs.	13	
Crowley, Mrs.	8	
Cogswell, Lloyd	1	
Clarkson, John	4	
Cogswell, Walter	8	
Coyle, Edward	1	
Clark, Ralph	9	
Currie, Perley	6	
Crowley, Kenneth	4	
Chase, Mrs. Issac	9	
Crawford, Oswald	7	
Cochrane, Herman	12	
Clayton, Chas.	3	
Carr, Harley	4	
Coombs, Robert	1	
	<hr/>	110
Dow, Harold	8	
Donovan, Harry	1	
Davidson, Geo. M.	6	
Daley, George	9	
Dunlop, John	10	
Donnelly, Patrick	3	
Dotton, Arthur	5	
Dykeman, Samuel	13	
Day, H?H.	11	
Duffy, Thos.	7	
Darlington, George	1	
Downie, Everett	3	
Douglas, Robert	1	
Doherty, J.J.	1	
Daley, Mrs.	1	
	<hr/>	80
Erickson, Tage	4	
Eatman, Dubert	3	
Estey, Arthur	6	
	<hr/>	13

Wood delivered from City Yard from December 1st, 1933 to Nov.31, 1934

<u>Name</u>	<u>No. of Loads</u>	
Foster, Clive	3	
Ferguson, George	2	
Farrell, Fred	6	
Frasham, Charles	11	
Forrest, Mrs. Jas.	2	
	<hr/>	24
Green, Harold	10	
Gorst, Samuel	2	
Gorst, Mrs.	6	
Gordon, Mrs. John	11	
Green, Jas. V.	6	
Gibbs, Ralph	2	
Greenfield, Herbert	6	
Gordon, Lawson	6	
Gordon, Mrs.	5	
Gallant, Leo	1	
Grace, Walter	11	
Gibbs, Mrs.	7	
Gordon, Leonard	1	
Grant, Howard	7	
Gallant, Eugene	5	
Gallant, Walter	5	
	<hr/>	91
Hamilton, Ralph	5	
Hoyt, William	10	
Haines, John P.	4	
Holmes, Mrs.	4	
Hunt, William	2	
Hickey, Gwy	7	
Harrison, John	10	
Hamilton, Stanley	5	
Hashey, Gerald	9	
Hagerman, V.	2	
Horton, Sydney	5	
Hubble, John	2	
Harnish, Neil	1	
	<hr/>	66
Irvine, Colby	7	
Ingraham, Curtis	1	
	<hr/>	8
Kirkpatrick, Mrs.	3	
King, Joseph	6	
	<hr/>	9
Lyons, Carlos	7	
Lawrence, Woodford	1	
Lovely, Roy	7	
Lyons, Jas.	5	
Legere, Jas.	4	
Langley, Wm.	1	
Lyons, John	1	
Lawrence, John	5	
Lyons, Hartley	8	
Larsen, Evald	2	
Livingstone, David	3	
Lynch, Fred	2	
	<hr/>	46
Miller, John	9	
Mackay, Geo.	2	
Morgan, Kenneth	3	
Murray, John	10	
Murray, Chas.	7	
Murray, Mrs. John	4	
Maston, Thos. M.	3	
Murphy, Vaughn	8	
Morris, Mrs. B.	9	
Munroe, Turney	3	
Munn, Allen	1	

Wood delivered from City Yard from December 1st, 1933, to Nov. 31, 1934

<u>Name</u>	<u>No. of Loads</u>	
McLaughlin, Mrs. Harry	10	
McArthur, John	2	
McQuinn, Chester	8	
MacLean, Walter	10	
McSorley, Arthur	4	
McDonald, Michael	12	
McDonald, Edward	7	
McAuley, Mrs.	5	
McAllister, John	8	
McCordick, Chas.	6	
McArthur, Alex.	1	
McDonald, Angus	4	
McCourt, Earl	6	
McFadzean, Eldon	6	
McNulty, Wm.	1	
McDairmaid, A.	1	
McFadzean, M.	2	
McCormack, H.	1	
	<hr/>	94
Nelson, Oscar	8	
Niles, Horace	10	
	<hr/>	18
O'Hara, Allan	1	
O'Rea, Harry	9	
O'Connor, Jas.	6	
Owens, Mrs.	6	
	<hr/>	22
Price, Weldon	3	
Peterson, Byard	3	
Price, Mrs.	8	
Porter, Mrs.	5	
Pidgeon, Harry	4	
Parker, Raymond	4	
Porter, Mrs.	1	
Partington, HJohn	3	
	<hr/>	31
Robichaud, Wm.	7	
Roberts, Chas.	7	
Robichaud, Fulton	1	
Rankine, Jas.	6	
	<hr/>	21
Sewell, Mrs.	6	
Stewart, Arthur	5	
Schambel, Mrs.	2	
Schleyer, Fenwick	1	
Schleyer, Harold	3	
Saunders, Fred	1	
Sproule, Chas.	6	
Sherman, Dell	1	
Stilwell, Eldon	9	
Schafe, George	1	
Smith, Norman	6	
	<hr/>	41
Taylor, Leonard	12	
Tedford, Mrs.	8	
Tilley, Mrs.	13	
	<hr/>	33
Toner, Jas.	1	
Toner, Raymond	3	
	<hr/>	4
Williams, Welson	6	
Wasson, John	9	
Waddington, Wm.	10	
Wharton, Jas.	3	
	<hr/>	28

<u>Name</u>	<u>No. of Loads</u>	
White, Robert	4	
Withrow, Mrs.	9	
Wright, Mrs.	<u>3</u>	16
Yeomans, Myles,	<u>5</u>	5

Total No. of Loads..... 933

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Water Services

Water Services from Dec. 1st 1933, to Nov. 30th 1934,

Feb. 19-20	Exhibition Concrete Bldg, Smythe St.	3/4 Gal. Iron	New
Feb. 28 to March 14	Loyalist Bldg, Queen St.	1" Lead	New
May 4 - 6	Thompson, 267 Brunswick St.	3/4 gal. Iron	Relaid
May 14 - 15	Gibson, Winslow St.	3/4 Gal. Iron	New
" 14 - 15	Fisher, V. Alexandra St.	3/4 Gal. Iron	New
May 15--17	Dobbblestein, Aberdeen St.	3/4 Gal. Iron	New
" 16 - 18	Gregg, Union St.	3/4 Gal Iron	New
May 21	Wall, Miss Kate Shore St.		Relaid
May 28 - 29	Davidson, Dundonald St. " old Water Service on York St.	Copper turned off at Main	New
May 31st to June 4	F'ton Welding Shop, King St.	Copper	New
June 5 - 9	Gunters, University Ave.	Copper	Relaid
June 14 - 16	Kitchen, Coles York St.	Copper	Relaid
June 22	Clark, W. G. Waterloo Row	Copper	Relaid
June 27 - 28	Methodist Church, King St.	Copper	Relaid
June 30 to July 4	Methodist Church Parsonage to Caretakers House	Copper	Relaid
July 4 - 5	Staples, Wm. King St.	Copper	Relaid
July 6 - 7	Anderson, 82 Charlotte St.	Copper	New
July 8 - 10	Morrison, Carleton & King St.	Copper	Relaid
July 19 - 20	Wetmore, Westmorland St.	Copper	New
July 28 to Aug. 1st	Water Extension on Beaverbrook St. From Tom Lynch's House to S. P. MacDougall,		
July 30 to Aug. 1st	S.P. MacDougall, Beaverbrook St.	3/4 Gal. Iron	New
Aug. 1 - 2	Coyle, John Scully St.	Copper	New
Aug. 7 - 10	Gerow, Miss Saunders St.	1" Gal. Iron	Relaid
Aug. 10 - 11	Young, Roy Aberdeen St.	Copper	New
Aug. 18 - 21	Smith, Donald George St.	Copper	New

Water Services

Aug. 24	Niles, Thos.	George St.	Lead Service $\frac{3}{4}$ " Gal Iron from Box to Cellar	Relaid
Aug. 27	Sterling, Miss L.	514 King St.	Lead Service $\frac{3}{4}$ " Gal Iron from Box to Cellar	Relaid
Aug. 27 - 29	Leslie, Fred	Scully St.	Copper	New
Aug. 29 - 30	Jewett, A. H.	Cor. Regent and Brunswick St.	Gal. Iron	Relaid
Sep. 11 - 12	Boyle, Austin	Northland St.	Gal. Iron	New
Oct. 10	Hanson, R. B.	Church St.	Copper	Relaid
Oct. 23 - 25	Old Military Hospital, Carleton St.		Copper	New
			Old Water Service turned off	
Oct. 23 - 26	Vic. Public Hospital,		$1\frac{1}{4}$ " Gal. Iron	Relaid
Oct. 26 - 27	Gough,	Dundonald St.	To Street Line	New
Oct. 29 - 30	Astle, T. M.	Aberdeen St.	Copper	New
Nov. 5 - 6	Coyle, Wm.	Albert St.	Gal. Iron	New
Nov. 20 - 21	Clark, W. G.	York St.	Copper	Relaid
Nov. 29 to Dec. 1st	{ Jewish Synagogue, { Westmorland St	5/8	Lead	New

November 14, 1934,

Water Meter Services discontinued  
from

December 1st 1933 to October 31st 1934,

Gov't Garage, .....	King Street
Roundhouse, .....	York Street
Grand Hotel ( Stable )	Campbell St.
Phair, L. B. C. ( Stable )	

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No. of Meters in Service Oct. 1933, .....	1040
No. of Meters in Service Oct. 1934, .....	1057
No. of New Meters installed during Year 1934, ....	21
No. of Water Meters taken off during Year 1934,	4
Total No. of Meters in Service October <u>1934.....</u>	<u>1057</u>

No. of Water Meters Stopped during Year 1934,  
.....66 .....

Month of February ...1934.....	3
" " April ....."	24
July " July ....."	19
" " October ....."	20
Total .....	66

November 14, 1934,

WATER SERVICES METERED

from

December 1st 1933 to October 31st 1934,

<u>Date</u>	<u>Name</u>	<u>Street Address</u>	<u>Meter Reading</u>
Jan. 22/34	Jos. O'Hara,	181 Charlotte	000
April 5/34	R.C.M.P. Headquarters	Woodstock Rd.	000
June 2/34	Conor ete Bldg, Exhibition Ground	Smythe	575000
June 2/34	Wash House Exhibition Ground	Smythe	263000
Aug. 11	Mrs. Ladds,	150 Aberdeen	000
Aug. 27	M. Gibson	Winslow	000
" "	Delmas Olts,	"	000
" "	Vernon Fisher,	Alexandra	000
" 28	Miss E. Anderson,	Charlotte	000
" "	Ryan,	Grey	000
" "	Jas. Mavor,	"	000
" 29	Loyalist Bldg,	Queen	000
" "	Gregg,	Union	000
" "	Wetmore,	Westmorland	000
Aug. 30	F. W. Gunter,	Aberdeen	000
" "	Dobblestein,	Aberdeen	000
" 2	Coyle, John	Scully	000
Sep. 4/34	Ja s. E. Forbes,	Saunders	000
" 14	D. Gorman,	121 Westmorland	000
	Roy Young,	Aberdeen	000
Oct. 1/34	Mrs. J. Harvey,	245 York	000

Total ..... 21 Water Services Metered

Water Meters in Service October 1934,

<u>Street</u>	<u>No. of Meters</u>
Allen .....	2
Aberdeen .....	63
Alexandra .....	4
Argyle .....	11
Brunswick .....	90
Church .....	17
Charlotte .....	110
Carleton .....	16
Campbell .....	6
George .....	97
Grey .....	10
King .....	96
Lansdowne .....	14
Needham .....	17
Northumberland .....	33
O'dell ave. ....	7
Phoenix Sq. ....	4
Queen .....	83
Regent .....	47
Saint John Street .....	46
Smythe .....	26
Scully .....	9
Shore .....	6
Saunders .....	55
Union .....	15
University Ave. ....	32
Victoria .....	2
Waterloo Row .....	27
Westmorland .....	39
Woodstock Road .....	8
Winslow .....	2
York .....	59
Stables .....	4
Total	1057

YEARLY REPORT OF CITY ENGINEER

FREDERICTON, N. B.

1933

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YEARLY REPORT OF THE CITY ENGINEER

FREDERICTON, N. B.

1933

TO HIS WORSHIP THE MAYOR AND THE ALDERMEN  
OF THE CITY OF FREDERICTON: -

Gentlemen: -

This report is a statement of the work done in the different City Departments under the direct supervision of the City Engineer, and covers the period of time from the 1st of December, 1932, to the first of December, 1933. All figures, and statements derived from them, appearing in this report, have been carefully compiled and, I believe, are correct and fit to be used in working out costs for future expenditures.

This report is written with the idea of having a record on file of the year's work, expenditures, and unit costs, and will therefore perhaps not be interesting reading to a person who is not looking for some definite information. For this reason I would like to bring a few facts to the attention of the Council at the beginning of the report.

I have found that the men receiving direct relief on account of unemployment are, on the whole, willing to work for this relief and show exceptionally good morale. However, a certain percentage of these men are not efficient workmen and in ordinary times would not be able to hold a job on our regular City crews. This fact, along with the necessity of working men in shifts, makes it difficult to show good cost records on jobs done with this relief labor. I believe also there is a feeling among some of the men on relief that, as long as they are working out all or even any part of the relief received, they are not accepting charity. A certain percentage of them are becoming satisfied with this means of subsistence, and are becoming less ambitious to find jobs for themselves and so re-establish themselves in ordinary commercial life. This, I believe, is good neither for the man nor for the community.

Our regular departments this year have been carried on with the idea of doing maintenance work only and so keeping the costs of these departments within their allotted

appropriations as these appropriations were fixed for the year with the understanding that they were only sufficient to do maintenance work. By looking at a table appearing on page 10 of this Report, and showing comparative costs of Roads and Streets from 1927 to 1933, it will be seen that our Roads and Streets expenditure has been materially kept down while at the same time the Roads and Streets of the City have been kept in a good state of repair.

Following is the body of my report, which is in reality a detailed statement of work done and expenditures in the different Departments:-

#### GOVERNMENT AIDED UNEMPLOYMENT RELIEF

During the year 1933 there was only one scheme which comes under the above heading, namely that known as "Direct Relief Plan". Under this plan the relief expenditure was borne, - 1/3 by the Provincial Government, 1/3 by the Federal Government and 1/3 by the City.

No direct cash payment was made to any person on relief, but the person entitled to relief was given food, clothes, fuel and rent. An arrangement was made between the City and Governments to allow the City to call on men who were receiving this direct relief to work for the City in payment of same.

I am here only making a report on the labor utilized by the City under this scheme. The following table shows the amount of labor used by the City in payment for direct relief given out during 1933:-

<u>Period 1933</u>	<u>Amount direct relief given out.</u>	<u>Amount of work done by men in payment for direct relief.</u>	<u>Percentage of relief worked out.</u>
Jan. 1st - 31st.	\$3,941.38	\$1,231.20	31%
Feb. 1st - 25th	3,836.16	1,069.80	28%
Feb. 26th - March 31st	4,208.15	141.30	3.4%
April 1st - 29th	3,981.44	70.84	1.8%
May 1st - 28th	2,793.44	583.52	21%
May 29th - June 30th	2,239.61	733.88	32.7%
	<u>\$21,000.18</u>	<u>\$3,830.54</u>	<u>18.24%</u>

This labor, made available by reason of direct relief given out, could not all be used by the City. When the men were receiving the relief, there was not enough work in the City that

needed to be done and could be done at that time of the year. We endeavored to work the men in two and three day shifts, and tried to have all men work out equal proportions of the relief they received. We mostly kept these relief men on the special jobs, as it was felt that to use them to do all our ordinary work would deprive our regular City employees of their means of livelihood and force them to become relief cases.

Following is a distribution sheet worked out at a rate of twenty-eight cents (28¢) per hour for relief labor used, and showing the different City Departments which used this relief labor and for what class of work it was utilized.

Relief Labor Distribution Sheet from January 3rd, 1933,  
to June 30th, 1933.

Roads and Streets.

Snowploughing Sidewalks.....	\$8.40	
Shovelling and hauling snow off streets.....	425.92	
Catchbasins.....	7.20	} Snow Control
Clearing Ice from Gutters.....	7.20	
Shovelling snow (Maryland Hill).....	2.40	
Thawing Surface Sewers.....	.60	
Yard.....	4.80	
Sanding Walks.....	14.10	
Surface Sewers (Valley Motors).....	16.80	
Alexandria Street.....	<u>317.52</u>	\$804.94

Public Works

Back Drain Diversion.....	\$867.36	
Unforeseen Acct. (Gardens).....	13.44	
" " (Trotting Park).....	81.76	
" " (Historical Society).....	<u>13.44</u>	976.00

Water

Ordinary Water.....	\$95.82	
Hydrants.....	<u>20.10</u>	115.92
Pumping Station.....	<u>\$12.40</u>	12.40
Domestic Sewerage.....	<u>\$88.25</u>	88.25
City Hall.....	<u>\$8.40</u>	8.40

Municipal Home

Wood from U. N. B. Grounds.....	1,417.50	
Sawing and delivering wood.....	<u>392.13</u>	1,809.63
Market.....	<u>.60</u>	.60
		<u>\$3,816.14</u>

## ROADS AND STREETS

Gross expenditure.....	\$19,161.38	
Credits.....	332.28	
Net Expenditure.....	<u>\$18,829.10</u>	
1933 Appropriation.....	19,000.00	
1933 Roads and Streets Under-expenditure....	<u>\$170.90</u>	

The above credits are made up as follows:-

Received from other City Departments for work done or materials received from Roads and Streets Department.....\$278.00

Work done for or materials sold to private parties by Roads and Streets Department.....	54.28	<u>\$332.28</u>
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The above gross expenditure is made up as follows:-

Labor.....	\$10,607.99	
Material costs and Workmen's Compensation.....	8,553.39	<u>\$19,161.38</u>

The labor charge of \$10,607.99 is made up as follows:-

Snow Ploughing Sidewalks.....\$121.71

Streets:- General work on maintenance of streets and sidewalks and any other item such as building culverts, curbs and gutters, or pavements, which is not mentioned under some particular heading..... 1,292.66

Snow Control:- Shovelling and hauling snow, ploughing or scraping roads, clearing gutters of ice and snow, and any other means of snow control..... 918.95

Surface Sewers:- Cleaning, flushing and repairing surface sewers and building new surface sewers within street limits..... 351.75

Forward.....\$2,685.07

Brought Forward.....\$2,685.07

Sanding Walks:- Hauling, drying and storing sand in winter storage piles and spreading on slippery walks.....\$242.07

Yard:- Men working at blacksmith and repair work in City Yard, taking out summer equipment, storing winter equipment, etc..... 844.42

✓ Gravel:- Tallying and supervising gravel dug and delivered by contractor to City, also all spreading of gravel on City streets other than the roads listed under individual cost item headings.....110.99 ✓

Street Sprinkling:- Watering Carts.....758.18

Saint John Road:- All work done on river road from Alexandria Street to eastern City line, other than work done by power maintainer.....259.45

Doak and Wilsey Road:- All work done on these roads other than work done by power maintainer.....218.69

Woodstock Road:- All work done on this road other than work done by power maintainer or on paved portion of road..... 28.98

New Maryland Road:- From C.P.R. crossing to southern City line, all work done on this road other than that done by power maintainer.....1,935.44

Outlying Roads:- Hanwell Road, Cross Roads lying between Brick Kiln Road and College Hill Road, Brick Kiln Road, Poorhouse Hill Road, College Hill Road, and Forest Hill Road, all work done on these roads other than that done by power maintainer..... 518.26

Street Cleaning:- All cleaning and removal of dirt from streets.....1,937.02

Tarvia Repairs:- Mixing patching material and repairing asphalt and tar sidewalks and pavings, and applying seal coat of light tar or asphalt to pavements or to gravel or McAdam roads... 346.33

City Road Patrol:- Patrolling all unpaved streets and roads within the City limits with power maintainer..... 723.09

\$10,607.99

The above items are made up entirely of labor costs. They give a good idea, however, of the amount and kind of work done by the Roads and Streets Department for the year.

Following will be found a table comparing labor expenditure in these items from 1928 to 1933:-

TABLE COMPARING YEARLY COSTS IN ROADS AND STREETS

LABOR ITEMS

Item	1928	1929	1930	1931	1932	1933
Snow ploughing						
sidewalks	\$184.63	\$113.95	\$326.01	\$264.10	\$234.13	\$121.71
Snow control	441.36	726.55	3047.50	3619.50	1548.55	918.95
Streets	4840.09	1425.01	1578.32	2968.98	617.40	1292.66
Surface Sewers		601.55	593.25	1609.15	450.20	351.75
Sanding Walks	416.19	328.16	142.47	42.66	203.02	242.07
Yard	1024.33	1196.92	1527.15	427.98	995.31	844.42
Gravel	383.81	1312.00	1101.13	1194.58	921.89	110.99
Street Sprinkling	1120.53	686.35	739.85	644.74	693.45	758.18
Stone Crushing	829.34		1165.56	522.44	713.71	
Saint John Road	1566.65	1848.50	750.36	558.44	2812.73	259.45
Doak and Wilsey						
Roads	749.87	225.30	565.33	1952.93	2390.52	218.69
Woodstock Road	410.99	241.00	336.05	43.04	238.83	28.98
New Maryland Road	294.64	388.85	91.32	237.12	6941.61	1935.44
Outlying Roads	1157.25	770.70	294.56	1053.83	1317.08	518.26
Street Cleaning	1478.40	2735.15	2599.33	2366.01	2256.16	1937.02
Tarvia Repairs	962.02	1042.70	453.29	775.62	453.66	346.33
City Road Patrol	489.30	636.80	1143.78	921.09	750.61	723.09
Quarry					1892.10	
Cinders from						
Maritime Electric	171.13	210.98	78.77	94.71		
Paving	601.92			6727.62		
Totals	\$17122.45	14490.47	16533.53	26024.54	25430.96	10607.99
Paving not paid out of regular Roads & Streets appropriation		4525.10				
	\$17122.45	19015.57	16533.53	26024.54	25430.96	10607.99

Snow Control:-

The labor charge of \$918.95 was divided as follows:-

Hauling snow off streets.....	\$261.95	
Ploughing roads and streets.....	119.75	
Shovelling roads.....	160.64	
Removing snow and ice from catchbasins.....	156.58	
Cleaning ice from gutters.....	129.93	
Thawing surface sewers.....	8.90	
Thawing catchbasins.....	44.16	
General expenses, Timekeeper, etc.....	37.04	\$918.95

Streets:-

The labor charge of \$1292.66 was divided as follows:-

Ordinary repairs to streets.....	\$429.58	
Spreading calcium chloride.....	8.08	
Erecting and Painting Stop-signs.....	24.20	
Painting Fence Posts.....	7.20	
Cutting grass on sides of streets.....	44.08	
Scarifying and reshaping block on York street by C. P. R. Station.....	34.04	
Construction of Alexandria Street.....	478.06	
Construction of Winslow Street.....	72.46	
Building earth sidewalk on Albert Street.....	139.82	
Repairs to bridge over backdrain on Victoria Street.....	3.04	
General expenses, Timekeeper, etc.....	52.10	\$1292.66

Alexandria Street was graded from Waterloo Row to University Avenue, using all available material within the street limits. Although there was not enough material to bring the street up to what should be a finished grade and width, a great improvement was made over the former condition of the street, which before this construction, was only passable for traffic between Winslow Street and Waterloo Row. This street is now in fairly good condition and built almost to a finished grade and width from Waterloo Row to University Avenue.

Besides the amount of \$478.06 of ordinary Payroll labor spent on this job, the equivalent of \$317.52 of relief labor was used.

A similar piece of grading to that done on Alexandria Street was done on Winslow Street between Alexandria and Grey Streets.

Surface Sewers:-

The labor charge of \$351.75 was divided as follows:-

Repairing surface sewers.....	\$40.35	
Repairing catchbasins.....	97.81	
Cleaning Catchbasins.....	147.81	
Flushing surface sewers.....	51.60	
General expenses.....	14.18	\$351.75

Gravel:-

3500 cubic yards of gravel were dug from the river and delivered to the City by Ray Burpee. The delivery of this gravel started January 19th, 1933, and was finished February 11th, 1933. The prices and points of delivery were as follows:

Doak Station, 500 cubic yards @ 78¢.....	\$390.00	
Salamanca, 160 cubic yards @ 52¢.....	83.20	
City Hall Wharf, 2840 cubic yards @ 52¢.....	1,476.80	\$1,950.00

Saint John Road:-

The labor charge of \$259.45 was divided as follows:-

Thawing Catchbasins.....	\$16.47	
Spreading Calcium chloride.....	8.78	
Spreading gravel.....	62.04	
Work on culverts.....	65.00	
Ditching, etc.....	81.02	
Cutting bushes.....	15.68	
General expenses.....	10.46	\$259.45

Doak and Wilsey Roads:-

The total labor charge of \$218.69 was divided as follows:-

Doak road, spreading gravel.....	\$51.80	
Doak road, horse patrol.....	13.20	
Doak road, fixing culvert.....	3.00	
Wilsey road, spreading gravel.....	83.16	
Wilsey road, horse patrol.....	22.00	
Wilsey road, ditching, etc.....	36.72	
General expenses.....	8.81	\$218.69

New Maryland Road:-

The labor charge of \$1,935.44 was divided as follows:-

Thawing culverts and cutting ice out of ditches....	\$53.41	
Spreading gravel.....	181.02	
Repair work due to storm in September.....	77.95	
Rock Paving and Rip Rapping side ditches.....	1545.12	
General Expenses.....	77.94	\$1,935.44

The road on Maryland Hill has a heavy grade and on this account we have always had trouble with the side ditches which were continually being washed out by heavy storms. This year we rock paved and rip-rapped the ditches on both sides of this road from the C. P. R. tracks to a crossroad known as the Green Road, - in all some 4600 lineal feet of ditch. This work, besides being necessary to the proper maintenance of the road, was done at this time (October 5th to November 18th) to help relieve the unemployment situation. About two-thirds of the stone used was picked up or quarried along the roadside some two miles out on the Maryland Road and hauled in to the job by the City truck. The rest of the stone was quarried out of a field located alongside the job and hauled out by teams. The labor charge covers practically the entire cost of this job except for such items as small tools, and gasoline and oil for the truck.

The ditches were made two feet wide on the bottom, one foot deep and four feet wide at the road level, the back of the ditch being rip-rapped up higher where necessary to meet the earth slope of the bank. The labor cost per lineal feet of finished ditch was thirty-four cents (34¢).

#### Outlying Roads:-

The labor charge of \$518.26 was divided as follows:-

Hanwell Road.....	\$7.12	
Forest Hill Road.....	193.15	
College Hill Road.....	180.12	
Poorhouse Hill Road.....	100.44	
Flanagan Road.....	4.40	
Golf Club Road.....	12.14	
General Expenses.....	<u>20.89</u>	\$518.26

#### Tar and Asphalt Road and Sidewalk Repairs.

The labor charge of \$346.33 was divided as follows:-

Patching Streets.....	\$236.91	
Tarring Streets.....	12.38	
Patching Sidewalks.....	83.08	
General Expenses.....	<u>13.96</u>	\$346.33

Our tar and asphalt pavements were maintained this year, as last year, with the idea foremost of keeping down expenditure as far as possible for the year. However, they were not allowed to become broken and a light seal coat was applied where absolutely necessary.

The following table shows bituminous material used in 1933:-

	Heavy tar or asphalt.	Light tar or asphalt.	K.P.	Asphalt Emulsion
Gallons in stock Spring of 1933	44	225	0	0
Gallons purchased 1933	0	0	0	2470
Available for season 1933	44	225	0	2470
Stock on hand Fall of 1933	44	0	0	90
Used in season of 1933	0	225	0	2380

TABLE SHOWING COMPARATIVE COSTS OF ROADS AND STREETS,  
YEARS 1927 to 1933:-

Year	Expenditure for Labor.	Gross Expenditure Labor and Materials.	Credit	Net Costs Labor & Material	Approp- riation.
1927	15,692.00			25,245.00	26,000.00
1928	17,122.45			26,058.70	26,000.00
1929	14,490.47			26,682.98	31,000.00
1930	16,533.53			34,556.33	32,500.00
1931	26,024.54	50,849.60	15,511.97	35,337.63	31,000.00
1932	25,430.96	39,101.62	4,822.19	34,279.43	25,000.00
1933	10,607.99	19,161.38	333.28	18,829.10	19,000.00

PUBLIC WORKS

Gross Expenditure.....	\$5,394.06
Credits.....	474.89
Net Expenditure.....	\$4,919.17
1933 Appropriations.....	4,500.00
1933 Public Works overexpenditure.....	<u>\$419.17</u>

The above credits are made up as follows:-

100 cords of green wood cut and hauled to the  
City Yard by the Public Works Department and  
sold to the Municipal Home Department at  
\$3.50 per cord.....\$350.00

Work done for and charged to private parties  
by the Public Works Department..... 124.89      \$474.89

The above gross expenditure is made up as follows:-

Labor.....	\$3,948.39	
Material and Workmen's Compensation Board.....	<u>1,445.67</u>	\$5,384.06

The labor account is divided as follows:-

Wood Lot.....	\$242.07	
Dump.....	762.11	
Surface sewer on the green at Smythe Street....	6.26	
Backdrain.....	<u>2,146.35</u>	
Unforeseen accounts.....	479.76	
Trees.....	<u>311.84</u>	3,948.39

Wood Lot:-

This \$242.07 was spent in cutting cordwood on the University of New Brunswick grounds. The City pays 75¢ a cord stumpage for this and are able to land the wood in the City Yard with stumpage paid at about \$3.50 total expense. They have a contract with the College for 1933 - 1934 to allow the City to cut five hundred cords.

Backdrain:-

The labor on backdrain this year was practically all expended on what is known as the backdrain diversion. This work was started last fall but was not completed until November 1933. The job was utilized as much as possible to employ relief labor and from January 3rd to June 30th some \$867.36 was spent in this relief labor where the men were paid in kind rather than money for their work. This piece of work has been described in yearly report for 1932 and I will only say this year that the work was completed as planned excepting the paving of the diversion ditch. It was found necessary to pave this ditch as well as rip rap it as the rush of water undermined the rock rip-rapping on the walls causing them to fall in places.

Unforeseen Account:-

The \$479.76 of labor under this account was divided as follows:-

Painting Streets.....	\$30.18
Spreading oil to destroy mosquitoes.....	3.20
River Roads.....	8.64
Garden work (Ploughing, harrowing, etc. for relief gardens).....	62.82
Drain at Wilmot Park.....	3.60
Fire on College lands on Forest Hill road.....	7.32
Cutting bushes and fencing at Children's Home.....	38.72
Ditching at Fredericton Trotting Park.....	46.54
Repairing drain through Fraser's Property, Woodstock Road.....	2.88
Work on Public Playgrounds at Queens Square and Wilmot Park.....	44.92
Historical Society (Fencing old Burying Ground).....	<u>26.88</u>

Forward.....\$275.70

Brought Forward.....\$275.70

Historical Society (Monument).....	86.23	
Building Ballground at Trotting Park.....	20.33	
Hauling gravel to Fire Department.....	4.22	
Repairing swings on Playground at Wilmot Park...	1.20	
Erecting signs for School Board.....	.84	
Hauling gravel on Exhibition Grounds.....	4.80	
Cutting bushes on river bank.....	6.54	
Searching for Lyle Bongard, lost in Tracey woods	59.16	
General expenses.....	20.74	\$479.76

TABLE SHOWING COMPARATIVE YEARLY COSTS OF PUBLIC WORKS

Year	Expenditure for labor	Gross Expenditure Labor and Materials	Credit	Net costs Labor and Material	Appropriation
1927	1,204.90			2,520.00	4,000.00
1928	2,470.39			3,156.87	3,000.00
1929	1,685.59	2,626.00		2,626.00	5,000.00
1930	2,279.82	3,397.09	237.90	3,159.19	5,000.00
1931	1,574.17	1,982.91	61.95	1,920.96	2,500.00
1932	3,797.65	4,992.98	322.35	4,670.63	2,500.00
1933	3,948.39	5,394.06	474.89	4,919.17	4,500.00

CEMENT WALKS

No cement walks were laid this year. However, some \$317.04 was spent on repairing and replacing broken cement walks. \$199.69 of this was labor charge and \$117.35 was material charge.

STREET LIGHTS

Gross Expenditure.....	\$6,425.87
Credits.....	000.00
Net Expenditure.....	\$6,425.87
1933 Appropriation.....	\$6,000.00
Over Expenditure.....	\$425.87

The expenditure was made up as follows:-

Current from Nov. 25, 1932, to Nov. 27, 1933,	
180780 K.W.H.....	\$4,912.89
Maintenance labor on 16,548 miles of line	
@ \$20.00.....	330.96
Lamps purchased for replacement and	
new installation	
12 - 600 C.P. Lamps @ \$2.45.....	\$29.40
4 - 400 C.P. Lamps @ 1.86.....	7.44
300 - 250 C.P. Lamps @ 1.50.....	450.00
100 - 100 C.P. Lamps @ .84.....	84.00
	<u>570.84</u>

Forward.....\$5,814.69

. Brought Forward...\$5,814.69

Material purchased for new installation  
and maintenance of lamp fixtures  
(including only such articles as standards,  
lamp brackets, heads, sockets, shades,  
etc)..... 223.89  
Material and extra labor used in line  
maintenance..... 236.24  
Miscellaneous, as telephone, ground  
rent, Payroll, etc..... 151.05      \$6,425.87

TABLE SHOWING CURRENT CHARGES FOR 1933.

Date of Bill	K.W.H.	Demand in K.W.	Average No. of burning hrs. per night.	Bill per month	Days per bill	Burning hours in each bill
Nov. 25/32 to						
Dec. 31/32	21420	45	14 $\frac{1}{2}$	\$536.10	36	522
Dec. 31/32 to						
Jan. 28/33	18600	45	14 $\frac{1}{2}$	479.67	28	406
Jan. 28/33 to						
Feb. 27/33	18480	45	13	476.74	30	390
Feb. 27/33 to						
March 27/33	14280	45	11 $\frac{1}{2}$	392.51	28	315
March 27/33 to						
April 27/33	12420	45	9 $\frac{1}{2}$	354.93	31	286.75
April 27/33 to						
May 29/33	11580	45	8	337.62	32	256
May 29/33 to						
June 26/33	10620	45	7 $\frac{1}{2}$	318.64	28	203
June 26/33 to						
July 27/33	9840	45.6	7 $\frac{1}{2}$	304.18	31	224.74
July 27/33 to						
August 28/33	13500	45	8	376.48	32	256
August 28/33 to						
Sept. 26/33	14400	51.6	10	408.88	29	290
Sept. 26/33 to						
Oct. 27/33	15900	45	11 $\frac{3}{4}$	425.09	31	364.25
Oct. 27/33 to						
Nov. 27/33.	19740	45	12 $\frac{1}{4}$	502.05	31	379.75
	180780			\$4,912.89	367	3893.5

The following statements are correct:-

	<u>1931</u>	<u>1932</u>	<u>1933</u>
Average monthly demand in K.W.....	49.57	45.9	45.6
Total K.W.H. consumed by street lights	189,840	175,980	180,780
Number of nights streets lighted.....	366	364	367
Total hours light burnt.....	3,879	3,852	3,893

Forward.....

Brought Forward.....

	<u>1931</u>	<u>1932</u>	<u>1933</u>
Total cost for year for demand and energy.....	\$5196.52	\$4824.99	\$4912.89
Average cost per K.W.H. for demand and energy.....	2.74¢	2.72¢	2.72¢
Average cost per burning hour for energy alone.....	99¢	92.5¢	94¢
Total cost per year for street lighting all charges included.....	\$6672.23	\$6532.51	\$6425.87

The total per capita charge for Street Lighting for 1933, (assuming population of 9000 persons) equals  $\frac{6425.87}{9000} = 72¢$ .

TABLE SHOWING COMPARATIVE YEARLY COSTS IN STREET LIGHTING.

<u>Year</u>	<u>Total Yearly Cost</u>	<u>Yearly Appropriation</u>
1927	\$8,088.41	\$8,000.00
1928	7,323.41	7,000.00
1929	7,434.72	7,000.00
1930	7,115.40	7,000.00
1931	6,672.23	10,000.00
1932	6,532.51	6,000.00
1933	6,425.87	6,000.00

BATHING BEACH

The Bathing Beach near the Waterworks at the west end of the City was continued with the Caretaker, Mr. Charles Williams, in charge from the 7th of June to the 11th of September.

The Beach cost the City this year \$230.95. - \$9.64 of which was for material and \$221.31 wages.

MUNICIPAL HOME

I am not here attempting to make a report of amount expended by the City in 1933 under the Municipal Home Department, but only to explain the expenditure of \$2,081.40 paid out in our ordinary City Payrolls and charged to the Municipal Home Department.

This expenditure is made up as follows:-

Shack for Mrs. Herman Cochran.....	\$30.60	
560 cords of wood cut on College Land and delivered to City Wood Yard.....	847.57	
993 loads of wood delivered from the City wood yard to the poor of the City.....	1,085.94	
General Expenses.....	<u>117.29</u>	\$2,081.40

Wood Cut on College Land:-

From January 6th to March 8th some 560 cords of hardwood were cut on the College land near Maryland Road and delivered to the City Wood Yard by the City crew. This wood was cut at a cost of \$847.57 for wages paid to our regular City employees and for hauling, etc., and \$1,417.50 paid in kind to men who were receiving relief from the City. These costs include all work done on College land and the cost of hauling the wood to the City Yard. The ordinary Payroll includes Foreman's wages and the wages of a couple of regular employees who were employed on this work from time to time. It also includes the cost of hauling by teams and trucks. Teams received 60 cents a cord for wood on the east side of the Maryland Road and 70 cents a cord for wood cut on the west side of the Maryland Road.

The relief payroll includes all work on this job done by men who were paid in kind (food, clothes, rent and fuel).

The actual costs of this wood are as follows:-

560 cords @ 50¢ stumpage.....	\$280.00	
Ordinary payroll.....	847.57	
Relief payroll.....	1,417.50	
Small tools, etc.....	<u>50.00</u>	\$2,595.07

Cost per cord \$4.63

SEWERAGE DOMESTIC

Gross Expenditure.....	\$1,925.02
Credits.....	<u>378.73</u>
Net expenditure.....	<u>\$1,546.29</u>

The credit of \$378.73 is made up of work done on domestic sewers for private citizens and has been billed to these citizens.

The gross expenditure is made up as follows:-

Payroll.....	\$1,021.14	
Material charge and Workmen's Compensation	<u>903.88</u>	\$1,925.02

Only one new sewerage extension was made this year. This was on Winslow Street from Grey Street some 210 feet east to a house newly built by Delmas Olts. This sewerage extension cost 92 cents per lineal feet including all costs.

This year fourteen new customers were connected to the City sewerage system.

Twenty-nine (29) domestic sewer connections had to be dug out and partially relaid on account of growth of roots in the small pipe. The entire domestic sewerage system was flushed out twice during this year. Once between April 24th and June 2nd with a payroll cost of \$92.48 and once from October 12th to October 18th with a labor cost of \$71.04. It was found that April was a little early to start flushing sewers as the water in the river raised during May and the work had to be discontinued and done over again when the water fell.

#### WATER

The expenditure in this Department is divided into two headings, namely Water Ordinary and Pumping Station.

#### WATER ORDINARY

This heading takes in all expenditures for water outside the Pumping Station and Pumping Station grounds.

The expenditure under this heading is as follows:-

Gross Expenditure.....	\$3,937.42
Credits.....	<u>30.27</u>
Net Expenditure.....	<u>\$3,907.15</u>

The credit of \$30.27 is made up of work done on water services for customers on their own private property.

The gross expenditure is made up as follows:-

City payroll for Hydrants.....	\$270.60
City payroll for Meters.....	1,001.63
City payroll for Distribution System.....	<u>1,061.02</u>
	2,333.25
Material and other charges.....	<u>1,604.17</u>

Total gross expenditure....\$3,937.42

#### Hydrants:-

We have installed in the City 151 hydrants. This summer we gave every hydrant in the City a coat of paint. All hydrants must be examined in the fall and repacked and made ready for winter.

During the winter months it is necessary to examine each hydrant once every week or ten days to be sure that they are not frozen up but are fit for service. This year the labor cost per hydrant for inspection and maintenance was \$1.79.

Meters:-

We have in the City some 1040 meters in use and 486 customers on flat rate.

The labor cost this year per meter for reading, testing, repairing, etc. is \$0.96.

All meters are read four times a year. We also have about thirty customers whose meters are read once a month.

Meters found stopped during year.....41  
Services metered first time this year..... 7  
New meters purchased this year..... 2 - 1" Trident.  
Meters in stockroom 1st January 1934:-

8 - 5/8" meters, repaired and  
fit for service.  
10 - 5/8" meters, which can be  
repaired and made fit for  
service.  
1 - 1" new meter unused.

Distribution System:-

New water services put in this year.....12  
Old services dug up and repaired or relaid..13  
Services which froze and had to be thawed... 2.

No new water mains were laid this year, but we made three (3) one-inch installations. One on Victoria Street, between Northumberland and Smythe Streets. One on Dundonald Street, between Westmorland and Northumberland Streets, and one on Winslow Street, from Grey Street to the Olts house.

WATER PUMPING STATION

This cost includes all labor and material used at Water Pumping Station and grounds. .

Gross expenditure.....\$16,483.67  
Credits..... 3,527.22  
Net expenditure.....\$12,956.45

The credit of \$3,527.22 is made up as follows:-

Coal charged to Pumping Station and sold to workmen  
or other City Departments.....\$52.22  
Water charged to Sewerage Domestic for  
flushing domestic sewers..... 65.00  
Fire Department for Hydrant charges on 150  
Hydrants @ \$20.00.....3,000.00

Forward.....\$3,117.22

Brought Forward.....	\$3,117.22	
Water for City Hall Building.....	50.00	
Water for Municipal Home.....	25.00	
Water for City Yard.....	10.00	
Water for old Street Light Building, Carleton Street.....	25.00	
Water used by Roads and Streets Department to sprinkle streets and flush surface sewers.....	250.00	
Water used at Wilmot Park.....	50.00	\$3,527.22

The gross expenditure is divided as follows:-

City payroll for salaries of Engineers at Pumping Station.....	\$5,101.52
Work done by other City employees in and around Pumping Station.....	386.99
	<u>\$5,488.51</u>
Material and Workmen's Compensation.....	<u>10,995.16</u>
Total gross expenditure.....	<u>\$16,483.67</u>

During the year 1933 the ordinary maintenance work at the Pumping Station was well kept up. The interior of the buildings was kept in a neat clean condition. The machinery, both the used and standby, was kept in good running order. The lawn around the buildings was re-seeded and graded and kept trimmed during grass season.

Concrete retaining walls were built around the oil storage tanks in the yard.

A four inch steam pipe running from the boiler to the Allis Chalmers engine was renewed. Three new four inch valves and one new five inch valve were used in this installation. A two inch steam line running from boilers to the low lift steam pump was taken out and a two and one-half inch line was put in its place. One new three inch valve was used in this installation. Both these new steam installations were covered by four ply asbestos insulation. The exhaust from the air compressor in the oil engine room was changed from a sump pit, into which it formerly ran, and run directly out of doors. The pipe for cooling water used by the Sterling gas engine was renewed with one inch pipe from the main to the engine, and the gas feed from the vacuum tank to the Sterling engine was changed from 3/8 inch black iron pipe to 1/2 inch brass pipe. This work was practically all carried out by our engineers at the Pumping Station.

The usual work requiring extra labor was done in and around the Pumping Station. This work consists of periodical cleaning of coagulating basin and pump well, hauling chemicals, etc., and the time of relief man who works for eight weeks each summer while the regular Pumping Station employees are on their two weeks' holidays.

The material and other charges is divided as follows:-

Item #1.	Light and power supplied by Maritime Electric Co. Ltd., 273,326 K.W.H.....	\$6,192.72	
" #2.	Transformer charges.....	151.92	
" #3.	Lime, 6540 lbs. (best price \$1.85 and 6% Sales Tax).....	109.64	
" #4.	Alum, 147840 lbs. (best price \$1.20 F.O.B. Fredericton, all charges paid).....	1,804.44	
" #5.	Coal, 6 tons, used by other City Departments } Coal, 211 tons for Pumping Station use, Price \$4.79 in cellar }.....	995.31	
" #6.	Fuel oil (none).....	000.00	
" #7.	Engine Oil, Renown, 0 gals.....	000.00	
" #8.	Motor Oil, Polarine heavy, 0 gals.....	000.00	
"	Gargoyle Mobiloil, 0 gals.....	000.00	
" #9.	Gasoline, 90 gals. @ 25¢ a gal.....	22.50	
" #10.	Maintenance and repairs to building and machinery.....	416.32	
" #11.	New installations.....	000.00	
" #12.	Supplies, packing rags, etc.....	42.36	
" #13.	Stationery, forms, charts, etc.....	35.43	
" #14.	Workmen's Compensation Board.....	127.34	
" #15.	Dr. Hagerman's salary.....	861.00	
" #16.	Hoisting chemicals.....	86.00	
" #17.	Miscellaneous (Telephone, etc).....	50.18	
" #18.	J.D.MacKey, car allowance.....	100.00	\$10,995.-

This year to deliver 1000 Imperial Gallons of water to the City Mains took 1.7 K.W.H.

The Pumping Station cost this year of delivering 1000 Imperial Gallons of water to the City Main is 9 $\frac{1}{2}$ ¢.

The total cost of delivering 1000 Imperial Gallons to the City Main and making it available to the customer is 11.6¢

This cost includes all water costs, excepting collection of water bills and other overhead charges included in City Government costs, and bond interest and sinking fund.

The result of the filter and chemical treatment under the direct charge of Dr. H. H. Hagerman is this year, as usual, very satisfactory and is well shown by table hereinafter inserted.

Following are inserted tables:-

Table No. 1:- Table compiled from daily Pumping Station Charts, showing water pumped and material and machinery used in pumping.

Table No. 2:- Comparison of water pumped and costs for last eight years.

Table No. 3:- Results of filters and chemical treatment for year 1933.

Table No. 4:- Principal purchases of material used by different City Departments heretofore mentioned.

Table No. 1.

Table compiled from daily Pumping Station Charts,  
showing water pumped and material and machinery  
used in pumping.

Total hours in month	Month of	Gal. of water pumped.	lbs. of coal used	K.W.H. used	Hours power supplied by			Fuel and Lubricants		Hrs run low lift pump		Service Pumps	
					Mari- time	Oil Eng.	Gas	Pts. Eng. Oil	Gal gas used	#1 Motor	#1 Motor	#2 Motor	Gas
744	1932 Dec.	13,940,000	41,150	23,654	744			31	5	478 $\frac{1}{4}$	744	2	
744	1933 Jan.	13,950,000	46,600	21,726	742 $\frac{1}{2}$	1 $\frac{1}{2}$	20 min	32	4	483 $\frac{3}{4}$	744	9	20 min
672	Feb.	13,540,000	44,530	24,257	672			30	4	472	672	3	
744	Mar.	14,550,000	48,600	20,835	744			32	4	496	742	9	
720	Apr.	13,995,000	28,400	21,253	720			31	5	486	720	3	
744	May	15,555,000	21,100	25,693	744			32	4	525	744	3	
720	June	15,225,000	9,250	22,305	720		53 min	31 $\frac{1}{2}$	7	530	720	1	
744	July	16,325,000		20,517	733 $\frac{1}{4}$	10 $\frac{1}{2}$		33 $\frac{1}{2}$	4	549	743 $\frac{1}{2}$	5	53 min
744	Aug.	16,010,000		24,970	744			29 $\frac{1}{2}$	5	545	744	1	
720	Sept.	15,060,000	5,300	22,035	720			35	4	506	720	2	
744	Oct.	13,855,000	14,850	20,402	743		1 hr	35 $\frac{1}{2}$	3	483	743	3	
720	Nov.	13,045,000	37,950	25,679	720			31 $\frac{1}{2}$	4	488	718 $\frac{3}{4}$		
8760		175,050,000	297,730	273,326	8746 $\frac{3}{4}$	12	1.73	384	54 $\frac{1}{4}$	6052 $\frac{3}{4}$	8755 $\frac{1}{4}$	38.10	73

148.8

Table No. 2. COMPARISON OF WATER PUMPED AND COSTS FOR LAST EIGHT YEARS.

Year	I.G. Water Pumped	Yearly Gross Expenditure at Pumping Station	Pumping Station Costs per 1000 gal.	Total Yearly Water Costs	Total Yearly cost per 1000 gal.
1926	206,076,526	\$	¢	\$	¢
1927	198,165,000	18,040.65	9.10 cents	24,636.62	13.0 cents
1928	192,890,000	18,245.05	9.46 "	26,122.73	13.5 "
1929	195,590,000	17,722.44	9.00 "	32,142.34	16.4 "
1930	204,405,000	16,791.22	8.21 "	22,752.37	11.1 "
1931	187,164,000	16,425.55	8.8 "	24,359.10	13.0 "
1932	171,032,000	16,915.58	9.9 "	21,313.47	12.5 "
1933	175,050,000	16,483.67	9.5 "	20,390.82	11.6 "

Table No. 3. REPORT ON FREDERICTON WATER SUPPLY FOR YEAR 1933.

Total count of bacteria per c. c.  
on agar, two days, at room temp.

1933 Date of Samples	Raw Water	Effluent	Tap Water	Per cent Removal
Dec. 31/32	2000	4	-	99.8
Jan. 12/33	250	1	1	99.6
" 24	500	1	2	99.8
Feb. 13	7500	1	-	99.9
" 16	275	2	0	99.2
" 24	2400	8	-	99.7
Mar. 1	6000	1	2	99.9
" 13	500	1	-	99.8
" 20	800	0	2	100.0
Apr. 14	4000	12	-	99.7
" 18	6000	15	10	99.8
" 25	4000	3	2	99.9
May 9	6000	5	-	99.9
" 13	2000	3	12	99.8
" 23	800	0	-	100.0
June 12	270	1	2	99.6
" 20	2600	0	4	100.0
" 26	-	1	1	-
July 14	260	0	4	100.0
" 24	5000	0	4	100.0
Aug. 5	500	2	1	99.6
" 15	260	1	3	99.6
" 22	300	6	2	98.0
Sept. 12	500	1	12	99.8
" 21	1600	3	12	99.8
" 26	1400	8	17	99.4
Oct. 12	-	3	4	-
" 20	3500	6	-	99.8
" 25	4800	14	11	99.8
Nov. 11	10000	1	-	100.0
" 15	2500	13	6	99.5
" 21	3200	5	-	99.8
Dec. 13	-	-	1	-
" 14	800	3	2	99.6
" 19	280	3	1	98.9
Totals	80790	128	118	
Averages	2525	3.7	4.7	

Average percent Removal equals 99.85.

These results are similar to those of former years and agree quite closely with them. Following the custom of many years we have used hypo continuously, and alum as a coagulant for a large part of the year. Owing to the nature of the season we were unable to run the plant without alum for a shorter period than usual. The results shown above indicate the removal of a very large proportion of the impurities from the water and that the plant has done effective work during the year.

Fredericton, Feb. 15, 1934.

(Sgd) H. H. Hagerman.

Table No. 4.      TABLE SHOWING PRINCIPAL PURCHASES OF MATERIAL USED  
BY DEPARTMENTS HERE BEFORE MENTIONED

Material	Amount Purchased 1933	Average Price	Amount in stock Jan. 1, 1934.
5" T. C. Pipe	780 ft.	28¢	30
8" T. C. Pipe	337 ft.	52.3¢	0
4" Soil Pipe	60 ft.	50¢	0
30" Corrugated iron pipe	0		
24" Pipe "	6 ft.	\$3.43	0
18 " Pipe	0		0
15" Pipe	0		0
12" Pipe	0		0
Portland Cement	896 bags	70¢	0
Dynamite	106 lbs.	34½¢	0
Brick	2000	\$18.00	0
Stone (Trap Rock)	0		1900 tons crushed 500 tons not crushed.
Gravel, river,	3500 cu. yds.	52¢	1400 cu. yds.
Gravel, pit,	0		0
Calcium chloride	6 tons	\$29.00	0

Material	Amount purchased 1933	Average price	Amount in stock Jan. 1, 1934.
10' road machine blade	12	\$8.60	0
Lime	6540 lbs.	\$2.00 and sales tax	1400 lbs.
Alum	1478840	\$1.21 F.O.B. Fredericton	76000 lbs.
Heavy Tar	0		44 gal.
Heavy Asphalt	0		0
Asphalt Emulsion	2470 gal.	19¢ a gal.	90 gals.
Tar K.P.	0		0
Light Tar	0		0
Coal	395 tons	\$4.35 F.O.B. Fredericton	125 tons

All of which is respectfully submitted.

City Engineer.

February 15th, 1934.

October 11th

1933,

Labour on Monument

charged to

Public Works (Unforeseen Acct.)

Sep. 9/33	Cutting Logs for Drag .....	\$	<sup>5</sup> <del>8.19</del>
Sep. 11/33	Building Drag at Woodbridges .....		14.40
Sep. 12/33	Loading and hauling Stones ...		14.40
Sep. 13/33	Erecting Stones .....		14.40
Sep. 14/33	Erecting Stones <i>and fixing Gracards</i>		16.80 <u>68.19</u>
Oct. 7/33	Preparation for unveiling Monument		8.44
Oct. 8/33	Preparation for unveiling Monument		1.20
Oct. 11/33	General work, <i>Returning Bench, platform etc.</i>		<u>8.40</u>
Total .....			<del>86.23</del> 83.23

Bills.

Wedges (R. Stearns) =  
 Iron Rods (S. Clark. Son) =  
 Rope and Supports (S. S. Wall) =

March 9, 1933,

ORDINARY PAY ROLL ACCOUNT

Wood cut on U. N. B. Ground from Mar 1 - 8 1933,  
and charged to

Ordinary Pay Roll Account

March	1	1933	.....	10.37	
"	2		.....	9.77	
"	3		.....	14.17	
"	4		.....	11.57	45.88
"	6		.....	6.57	
"	8		.....	18.90	
					71.35

*Ordinary Pay Roll.*  
Total cost from Jan 6th March 8th 1933, .....\$ 847.57

January 6 - 31	1933	.....	\$ 397.88
Feb. 2 - 28	"	.....	378.34
Mar 1 -- 8	"	.....	<u>71.35</u>

*Relief Pay Roll Acc.*

847.57  
1417.50  
\$ 2264.07

These costs include all work done on college land and the cost of hauling the wood to the City yard. The Ordinary Pay Roll includes Foreman's wages and wages of Tractor a couple of regular employees who were employed at this work from time to time. It also includes cost of hauling by team and tractor. Teams received 60¢ a cord for wood on East side of road and 70¢ a cord for wood on West side of road.

Relief pay Roll includes <sup>all</sup> work on the operation done by men who were paid in kind, (Food, clothes, Rent, Fuel.)

OVER →

560 cords @ 50¢ stumpage = 280.00  
 Ordinary Pay Roll = 847.57  
 Actual Cash Paid by City = \$1127.57  
 Relief Pay Roll 1417.50  
 Actual Cost for Wood Operation = \$2545.07  
 To this must be added cost of small tools about \$30.00

Cost per cord including stumpage, small tools  
 and actual cash pay roll of City = \$2.07

Cost per cord including stumpage,  
 small tools, and relief pay  
 roll as well as actual pay roll = \$4.60  
 { I.E. Considering the relief men to hand  
 been paid at 30¢ an hour in  
 actual cash

560 Cords @ \$4.60 actual cost.  
 should add 10% for supervision  
 financing etc.

= \$4.60  
 46  
 506

WATER and SEWERAGE

ON WINSLOW STREET

from

Grey Street to David Olts, New House

Date	Water Service		Dom. Sewerage	
	Cost	of Labour	Cost	
May 11/33	\$ 14.40			
" 12	15.52			
" 13	9.72			
" 14	.56 (Lights)			
" 15	14.40			
" 16	7.20		8.32	
" 17			14.48	
" 19			15.04	
" 20			9.12	
" 21			2.48	
Total .....	\$ 61.80	.....	\$ 49.44	

210 ft. 8" T.P. Pipe @ 53¢ ..... 111.30  
 500 hard Bricks @ 18.00 ..... 9.00  
 4 Bags Cement @ 80¢ ..... 3.20  
 1 M.H. frame and cover @ 20.00 ..... 20.00  
 -----  
 Total ..... 143.50  
 Less ..... 49.44  
 -----  
 Balance ..... 94.06

250 ft. 1" Gal Iron pipe @ (12.23) ..... 30.58  
 1 - 1" Cast Iron Pipe ..... 2.00  
 2 - 1" Cast Iron Pipe ..... 6.00  
 1 - 3/4" Cast Iron Pipe ..... 5.00  
 1 - 1" Gal Iron T. ..... 3.00  
 1 - 1 1/2" Gal Iron Pipe ..... 10.00  
 -----  
 Total ..... 43.99  
 Less ..... 61.80  
 -----  
 Balance ..... 192.94

Total Cost Sewer = 192.94    Cost 210 ft. cut for ft = 92¢  
 Total Cut Water = 105.78    Cost 230 ft. cut for ft = 46¢  
 Estimate was lower 100 ft. 1" Water 53¢.

# Water Meters in Service October 1933,

.....1040 .....

<u>Street</u>	<u>No. of Meters</u>
Allen Street .....	2
Aberdeen Street .....	59
Alexandria Street .....	3
Argyle Street .....	11
Brunswick Street .....	90
Church Street .....	17
Charlotte Street .....	108
Carleton Street .....	16
Campbell Street .....	6
George Street .....	97
Grey street .....	8
King Street .....	97
Lansdowne Street .....	14
Needham Street .....	17
Northumberland Street .....	33
O'dell Avenue .....	7
Phoenix Square .....	4
Queen Street .....	82
Regent Street .....	47
Saint John Street .....	46
Smythe Street .....	24
Scully Street .....	8
Shore Street .....	6
Saunders Street .....	54
Union Street .....	14
University Ave, .....	32
Victoria Street .....	2
Waterloo Row .....	27
Westmorland Street .....	37
Woodstock Road .....	7
York Street .....	59
Stables .....	6
Total .....	1040

# WATER SERVICES

Water Services from Dec. 1st 1932 to Nov. 30th 1933.

Date	Name	Address	
Dec. 1/32	Forbes,	Saunders St.	New Service
Mar 4 - 6/33	Kitchen, A. B.	347 Queen St.	(Relaid) Lead
May 16 - 17	Dairy Depot	King St.	Relaid
" 15 - 16	Olts, David	Winslow St.	New Service
	(Ext. from Grey St. to Olts, New House)		
" 20 - 23	Allen,	Albert St.	New Service
" 25 - 27	Lemont,	Campbell St.	Relaid
" 22 - 26	Gough,	Regent St.	New Service
" 29 - 30	Boyle,	Argyle St.	New Service
May 31 - June 6	King, J. D.	Albert St.	New Service
June 7 - 8	VanWart,	318 Brunswick St.	Relaid
" 9	Blair, Est.	166 Brunswick St.	Relaid
	(Renewed from Street Line to House $\frac{3}{4}$ Gal.)		
June 12 - 13	Gunters,	Aberdeen St.	New Service
" 23 - 26	Currie, W. A.	Albert St.	New Service
" 26 - 27	Sharpe,	Albert St.	New Service
" 28 - 29	Shephard,	654 King St.	Relaid
July 6 - 7	Russell, Mrs. M.	864 Brunswick St.	Relaid (Lead)
Aug. 4	Jewett, John	515 Needham St.	Relaid
" 5 - 6	Pro. Govt. Bldg.	King St.	Relaid
" 5 - 8	Water Service on Victoria Street between Northumberland and Smythe St.		
Aug. 8 - 12	Water Service on Dundonald Street between Westmorland, and Northumberland St.		
Sep. 6 - 8	Haines, Earl	Argyle street	New Service
" 12 - 14	Ryan, Fred	Grey St.	New Service
" 15 - 16	Boyce, W. W.	York St.	Relaid (Lead)
" 20 - 22	C. P. R. (Depot)	York St.	Relaid
	(1" Lead from Main to Curb Cook)		
" 26 - 28	Belyea, F. Mont	224 Brunswick St.	Relaid
Oct. 18 - 19	O'Hara,	Charlotte St.	Relaid

Nov. 20 - 22 Ryan, Fred Grey St New Service

New Water Services ..... 12

Water Services Relaid ..... 13

New Water Main Extension 1" Gal. Iron on Victoria Street between Northumberland Street and Smythe Street

New Water Main Extension 1" Gal. Iron on Dundonald Street between Westmorland Street and Northumberland Street

New Water Main Extension 1" Gal. Iron on Winslow Street from Grey Street to Olts, new house

Water Services Metered from Dec. 1st 1932 to Nov. 30th 1933.

Property			Meter
<u>Date</u>	<u>Owner</u>	<u>Address</u>	<u>Reading</u>
Dec. 13/32	Calder, J.H. Est.	590 Queen St.	738000
" 14/32	Bradley, Mrs. J.	139-41 St. John St.	000
Mar. 30/33	Kitchen, H.G.	57 West'land St.	000
April 1933	Kitchen, A. B.	347 Queen St.	253000
June 6/33	McGormack, Wm.	Alexandria St.	000
" 5 /33	Davis, Geo. A.	379 North'land St.	000
June 9/33	Good, F. A.	630-32 Brunswick St.	000