

MUNICIPAL IMPROVEMENTS IN ALBERTA TOWNS AND CITIES.

SOME very interesting figures relating to the installation in 1913 of waterworks, sewerage and sewage disposal works in the Province of Alberta are presented in the report of R. B. Owens, B.A., B.E., Provincial Sanitary Engineer, in the recently issued report for last year of the Alberta Department of Agriculture. The following is a detailed list of new works or extensions, with estimated costs:

Waterworks.

Gleichen: Completion	\$ 4,851.00
Blairmore: System	15,000.00
Tofield: System	14,000.00
Redcliff: Extension	120,000.00
Bassano: System	17,800.00
Athabasca Landing: System	127,440.00
Edmonton: Extension	311,600.00
Lethbridge: Extension	34,636.00
Medicine Hat: Waterworks plant	75,000.00
Extension	225,000.00
Extension	193,410.00
Calgary: Extension	378,000.00
Extension	643,200.00
Edson: System	90,000.00
Coronation: System	40,000.00

Total estimated cost for water....\$2,289,937.00

Sewerage and Sewage Disposal Works.

Bassano: Sewage disposal system	\$ 12,000.00
Extensions, sewerage system	1,500.00
Athabasca Landing: Sewerage system	70,000.00
Edmonton: Extension to sewerage system..	569,500.00
Lethbridge: Extension to sewerage system..	92,500.00
Extension to sewerage system	72,000.00
Extension to storm sewerage system..	13,595.00
Extension to sanitary sewerage system ..	18,627.00
Medicine Hat: Extension to sewerage system	144,484.00
Main trunk sewer outlet and pumping station	105,000.00
System of storm sewer	50,000.00
Calgary: Extensions to sewerage system...	348,750.00
Extension to sewerage system	43,731.00
Extension to sewerage system	30,628.00
Edson: Sewerage and sewage disposal system	55,000.00

Total estimated cost of sewerage and sewage disposal works

Total estimated cost of waterworks, sewerage and sewage disposal works

The present standing of the various cities and towns in Alberta, with respect to municipal improvements, with the exception of roads, streets, etc., is as follows:

Edmonton.—Population, 73,000; water supply, m.o. (municipally owned), pumped from Saskatchewan River; 2 intakes consisting of steel pipes with screens and cribbing protection. Water mains, 128.6 miles; 9,275 house services; 5,738 houses without services; 1,477 stop valves; 648 hydrants, and 14 fountains. Daily consumption, 5,000,000 gal. Mechanical filtration plant (Roberts). Samples tested every other day in provincial laboratory. Sewerage system, partly combined and partly separate; 117 miles of sewers, ventilated at man holes and vertical soil stacks; 9,275 house services; 8 gravity outfalls to be reduced to 3. Part of the sewage treated by sedimentation.

There are two refuse destructors, a Heenan and Froud on the south side and a Decarie on the north.

The first town down stream is Fort Saskatchewan, 20 miles distant by river.

Calgary.—Pop., 80,000; water supply, m.o. Source, by gravity from Elbow River and by pumping from Bow River, both chlorinated. Bow River intake is a compound flume of reinforced concrete leading to pumps 600 ft. distant. Elbow River intake is a timber crib at the river bank. Water mains, 184 miles; 12,000 house services, and 400 houses supplied from 50 standpipes; 1,002 hydrants. Daily consumption, 11,750,000 gal. Samples tested regularly in municipal laboratory.

Sewerage system partly combined and partly separate; 188 miles of sewers, ventilated at every house service; 7,940 house services; 1,010 catch basin connections; 7 gravity outfalls into Bow and Elbow Rivers east of city, to be reduced by intercepting sewers built or under construction, to one main outfall. No part of sewerage treated. Plans under way for treatment system; packing plants and other trades deliver waste into sewers without preliminary treatment.

There are two refuse destructors, both Heenan and Froud.

Municipal gas supply, natural; obtained from Bow Island.

Medicine Hat.—Pop., 14,000; water supply, m.o.; source, South Saskatchewan River, by low-lift pumps to filters and high-lift pumps to reservoir and standpipe, with capacities 2,750,000 and 500,000 gal. respectively. Intake is a 36-inch cast iron pipe with concrete pier and a 20-ft. diameter well on the river bank. Water mains, 31 miles; 2,350 house services; 240 stop valves; 170 hydrants, and 6 fountains. Daily consumption, 3,000,000 gal. Mechanical filtration plant (New York Continental Jewell). Samples tested regularly in Medical Health Officer's laboratory.

Sewerage system, separate plan; 20.3 miles sanitary sewers ventilated through man-holes 94 yards apart, and vertical soil stacks; 3.2 miles storm sewers; 1,000 house services; 96 catch basin connections; three outfalls into South Saskatchewan River, each with a pumping station for discharge during high water. Daily discharge, over 1,000,000 gal. Sewage is not treated.

The first town down stream is Saskatoon, about 600 miles distant by river.

Municipal gas supply, natural, 1,050 B.t.u.; 38 miles of high and low pressure gas mains; 2,265 house services.

Lethbridge.—Pop., 11,000; water supply, m.o. Source, by pumping from Belly River; 38 miles of water mains; 2,000 house services and 120 houses without services. Daily consumption, 1,500,000 gal.; not filtered.

The first town up stream is Macleod, 30 miles distant by river; down stream, Diamond City, 6 miles distant.

Sewerage system, separate plan. One storm sewer with 100 catch basin connections. Two gravity outfalls; sewage treated in sedimentation tanks and filters.

Gas supply, natural; supplied by private company from Bow Island.

Macleod.—Pop., 2,500; water supply, m.o. Source, Old Man River; pumped by steam; 2 intakes, 16-inch wood pipe 700 ft. long and 20-inch wood pipe 2,300 ft. long, respectively. Water mains, 8.5 miles; 425 house services; 152 stop valves and 55 hydrants. Daily consumption, 450,000 gal.; mechanical filtration plant (Roberts).

Sewerage system, combined plan; 6 miles sewers with man holes 100 yards apart; 225 house services, catch