

The expenditure per train-mile has been as follows:—

Year.	Train Mileage.	Engine Mileage.	Locomotive. per Train-mile.	Car and Wagon per Train-mile.	Total.
1897	3,409,218	4,425,039	d. 13·41	d. 4·64	d. 18·05
1898	3,666,483	4,792,417	13·70	4·27	17·97

*Workshops.*—Much still remains to be done in the shape of additional workshop accommodation, machinery, &c.

The usual returns have been forwarded.

I have, &c.,

T. F. ROTHERAM,

Locomotive Superintendent.

The General Manager, New Zealand Railways, Wellington.

#### APPENDIX C.

##### ANNUAL REPORT ON THE MAINTENANCE OF NEW ZEALAND RAILWAYS.

SIR,—

Chief Engineer's Office, Wellington, 18th May, 1898.

I have the honour to report on the maintenance of the New Zealand railways for the year ending 31st March, 1898.

*Mileage.*—New lines were opened for traffic during the year as follows:—

	M.	ch.
Kanohi-Makarau	3	6
Newman-Woodville	24	40
Hyde-Kokonga	10	2
Total	37	48

The total mileage of railways opened for traffic on 31st March, 1898, was 2,056 miles 8 chains.

*Permanent-way.*—The lines generally have been maintained in fair condition.

*Rail Renewals.*—There have been 42 miles 19 chains of permanent-way renewed.

*Sleeper Renewals.*—New sleepers to the number of 286,343 have been relaid in the track during the year.

About 42,800 sleepers were used in respacing with the relaying of track. The ordinary renewals average 118 per mile of railway.

*Ballasting.*—Ballast-trains have been employed on various sections, but the total amount done is not equal to the previous year. This has mainly arisen through a difficulty of obtaining a sufficient number of ballast-wagons and engines.

*Floods and Slips.*—Very severe floods were experienced in the Hawke's Bay District and part of the Wanganui district in the early part of the financial year.

All the damaged formation has been made good with the exception of that between Farndon and Awatoto, where the line is still temporarily diverted. The Rangitikei and Aorangi Bridges, also the Waitangi Bridge, near Napier, were carried away. Temporary bridges were erected to reopen the traffic, and permanent works are now in hand.

A heavy slip took place on the Wellington line between Kaitoke and the Summit, which interrupted the traffic for two weeks and required the removal of a large quantity of material.

*Bridges.*—Ordinary bridge-repairs have been carried on, and a considerable amount of reconstruction has been done to provide for increased engine-loads.

Whangarei Section: The bridge south of Whangarei Station has been rebuilt.

Auckland Section: Twenty-one bridges have been repaired and strengthened up to standard, and two completely rebuilt.

Wanganui Section: Fifteen bridges repaired and brought up to standard.

Wellington-Napier Section: Temporary bridging, some hundreds of feet in length, was constructed in various parts of the Napier district after the floods before mentioned. Four bridges have been overhauled and repaired. A new iron viaduct at Kopua was completed in December, 1897, and opened for traffic. Concrete piers and abutments for a new iron viaduct at Makotuku have been completed, and the ironwork is now being prepared.

Christchurch Section: The Washdyke and Makikihi Bridges were rebuilt. Ashburton Bridge in process of reconstruction.

Rangitata Bridges, Ashley, Rakaia, Orari, Temuka, Opihi, Pareora, Otaio, Waihao, and several smaller bridges have had considerable repairs and strengthening up to higher standard. The Rakaia Bridge had thirty of its spans redecked.

Dunedin Section: The two large bridges at Otakia and Titiri have had the superstructures rebuilt. Balclutha Bridge strengthened up to standard. Strengthening of piers in Upper Waitaki Bridge is now in hand. Repairs and renewals to a large number of other bridges.

Invercargill Section: Seven bridges completely rebuilt. Heavy repairs have been effected to the Riverton Bridge, also Mataura Bridge at Wyndham. The Oreti Bridge, Mararoa Branch, was partially redecked.

Bridge-works in this section have been greatly retarded through the failure of supply of timber under order.

Westport Section: Bridge-repairs small.

Greymouth Section: Extensive repairs made to the Arahura Bridge. The ironwork of the Teremakau Bridge has been tarred. Minor repairs to other bridges.