

that Rose's overflow has been the salvation of Blenheim. I was a member of the Lower Wairau River Board for about four years. The Opawa breach has been a menace for some years to the Town of Blenheim, Spring Creek, Grovetown, and lower Wairau. I have not seen the work which was erected. The flood in November was very much lower than previous ones at Dillon's Point. It used to top the bank, but now it is only to the foot, a difference of 4 ft. I have known it to affect the river four miles up; and the pilot who was there when the opening was made before told me that the tides went out 2 ft. lower in the river. If you took all the water out at White's Bay there would not be sufficient to keep the bar open. The tide flows into the big lagoon for two hours after high water. I have not seen the upper one. There are bars across the channel—some with only 4 in. depth of water at low tides—which obstruct the connection with the river.

ALEXANDER JAMES MACLAINE. (No. 12.)

Secretary Wairau Harbour Board. Produces statement of moneys expended upon Harbour Board works, &c. The current was roughly measured at the July flood, 1916, and it was over 12 knots—about 200 yards from the bar end of the training-wall. The Opawa channel is silting up. The same boats have been running for about fifteen or sixteen years up the Opawa. Our revenue is about £1,200, and is made up by a fourpenny rate on the tonnage of vessels inwards and outwards, and sixpenny harbour-improvement rate per ton of cargo. Largest boat is "Magic," 99 tons; "Opawa," 69 tons; "Blenheim," 80 tons. It is about three months since the "Blenheim" has been here. They draw, when loaded, about 7 ft. 4 in. to 7 ft. 10 in. If bar is good it can be worked at half-tide, and so work from Blenheim, where the tide is two hours later than at the bar.

FRANK ADAMS. (No. 13.)

Farmer, residing in the Town of Blenheim, and member of the Lower Wairau River Board. I have been a member of the Board since 1894. Prior to this date there was very little banking for Blenheim. Small banks (mostly private) had been put up. Most of the public money expended was on Seymour's bank, which is situated on the right-hand side of the Opawa, and extends from Leary's breach down to the Opawa Bridge. The Opawa was also banked up-stream from Leary's breach to Jackson's Road, and there was a bank on the Omaka diversion. From the Opawa Bridge downwards a bank came right round Riversdale, round Section 48 and part of the Town of Blenheim. This part is now cut across Section 48 into a straight line down the stream. That bank continued round to Section 47, up to about Jackson's property, where it stopped. Going farther along there was no bank on that side of the Opawa. The bank on the left side commenced near Mr. Allen's residence, and then proceeded down the left-hand side of the Opawa, following Section 47, and then round a small bank to Dillon's Point. The Foster's channel was dug about 1890. The scheme was not successful. There were some small banks on the right-hand side after the junction of the Omaka and the Opawa. They went down as far as Section 28. Some protective banks were erected on the Taylor River from south-west corner of Section 6 to High Street Bridge. A scheme was adopted—Rose's overflow with town banking—before 1898. The Board then proceeded to acquire Section 25, after we got report from Mr. Cuthbert in 1894. The loan caused us a lot of trouble; £13,000 loan was refused, also £10,000, by the ratepayers. We were able to get a special loan of £5,000—£1,000 was for Leary's breach, £1,000 for town banks, £2,000 for overflow, £1,000 for reduction of overdraft. Then we got a Government grant of £2,000. Tenders were called for the overflow scheme on the 11th June, 1898. A contract was let in 1899 for the completion of the work. We spent a lot of money—practically all our rates—on Leary's breach between 1894 and 1898. We spent money in improving the banks and making them more stable. We erected banks at Pike's, also between the Gasworks and High Street Bridge, and between High Street Bridge and Alfred Street Bridge, with the necessary flood-gates. We put banks in at the Presbyterian Church and opposite Panama House. Since then the Taylor River banks have been greatly improved. We banked the river near Springlands. The river used to come round and back over the railway-line. The next trouble was with the Taylor River, which flooded the whole Town of Blenheim in 1911 and caused a great deal of damage. The Wairau and Opawa were not very high. It eroded the banks by the Royal Hotel and Presbyterian Church, and burst all the banks. We approached the Government for assistance, and were granted £3,600. We spent a lot of money on groynes and banks in the Waihopai. The Public Works Department approved the Waihopai and Wairau groynes. [Plans produced.] I suggest that the banks from Leslie's be kept farther back to the high ground on the southern side of the Railway Bridge (Wairau); bridge lengthened; also a straight run provided for water over the Peninsula; the bed of the river to be cleared. At Kennington's Point I suggest a bank to be put back on to the high land, and let the river overflow the point (Sections 84, 85, and 86). They should also cut the Maori Peninsula. I propose to bank the Pukaka on both sides, and put flood-gates in drains connecting therewith. We would have to remove all obstructions in the Wairau River. All the water that came out of the river at Leslie's Bend with the November flood passed back into the Wairau opposite Section 97. No water came into the Wairau below Beatson's. The water on the northern side of the river went back into the Wairau just below Tahua Watson's property. I do not think the harbour-works at the bar are of any practical service for the flood-relief. The Board asked Mr. Cuthbert to report on Rose's overflow before going to the ratepayers. They took no engineer's advice for general banking, nor any steps to ascertain if sufficient waterway were left. Mr. Dobson was our local engineer. He did what we wanted. We put the banks where we thought they ought to go without considering flood-flow or cross-section area. Our Board does not do much clearing of river-bed—not as much as we might do.