

200,000 or 300,000 cubic feet per minute. I do not know that I need trouble you with what the fall of the Silverstream is, except to say that there is a fall of 19 ft. and in some instances 30 ft. to the mile through the district, which will cause scour. During flood-time the water backs up and destroys the fall of the stream at the lower end. I have examined the Silverstream very carefully, and it flows through a gravel bed. This has been brought down from the mountains, and the plain has been gradually built up. The stream now is flowing on a gravel bed carrying the gravel downwards. We have a difficulty in doing works in the lower part of this area, and undoubtedly, unless something is done to prevent the gravel travelling down, whether it comes from the hills or not, any work that is done in the lower portion will in a short time become silted up with gravel. I wish to point out that the Taieri River as it takes its course across the plain has rather a free access. It is then forced against the hills at Allanton, and is concentrated at that point. As Mr. Palmer and others have mentioned, they are in a very awkward position, and I have no doubt they are. The river is very contracted at Allanton and Otakia, where Mr. Palmer says the water rises upon him. It will be necessary to regulate the river by widening. It will also be necessary to move back the west bank near Allanton and near Otakia, and carry it down the railway, and so make a free escape for the water at these places. We have also a proposal to deal with part of the Silverstream, which is to take the Silverstream pretty well on to its original course, and carry it out through the outlet at Mr. William Shand's, and construct an embankment at what is called the "straight-cut outlet." It would then be possible to prevent the river from flooding back through the gap and submerging the country. We propose to put in an embankment with a sluice-box, which will allow any water that gets behind the embankment to escape into the river. This will be a benefit to the district. In regard to the Owhiro district, there is high ground at the outlet at Allanton, and exactly the same thing takes place there: the water flows through this to low ground. We propose to carry the embankment up along the Owhiro till it reaches the high land, to prevent the river going back on to the low land occupied by Mr. William Shand. Mr. William Shand said this morning that it would require an embankment 30 ft. high along the Owhiro, but the difference between the flood-level at Mr. William Shand's own house and the swamp is 13 ft., so that the embankment will not be considerable to protect all that country from the water which is now submerging it from the Owhiro inlet. Then, if we lowered the flood-level of the river at Allanton Bridge by moving the river-banks we should let the flood-water go through. These works will to a considerable extent relieve this country. I do not mean to say that they will altogether do away with the floods in this district during a very severe flood in the river, but in ordinary floods it will be protected, and at the present time there are floods over that country two and three times a year. There are also drains and streams through the East Taieri District, and up to this year there has been an expenditure on cleaning these of £800-odd by the Board.

1. *The Chairman.*] Whose properties?—Various properties.

2. It might be a guide if we knew on whose property this work has been done?—They are already existing drains principally. There is Mr. Carmichael's, Mr. Anderson's, and Mr. Fowler's property.

*Mr. Fowler:* No drains have been cleaned on my property.

*Witness:* At all events, the Board has spent £800 on drains in the district.

3. What properties has that been spent on?—There is a drain which serves Mr. Carmichael and Mr. Anderson, and another drain which serves Mr. Murray. The Mill Creek has been cleaned up on the lower portion of the plain, and the Silverstream from Gladfield Road down has been cleaned. The drains along Blackie's, Kirk's, William Shand's, Smith's, B. Shand's, and Murdoch's properties, and others, up to Gordon Road, Mosgiel, have been cleaned.

4. You say there was about £800 spent on the east side?—Yes.

5. How much has been spent during that time on the other side?—About £1,200.

6. *Mr. Anderson.*] In regard to the £800, has that been spent on land outside the area that becomes flooded that you spoke of?—No, it is practically all flooded area. There are about 5,000 acres on the eastern side that are flooded.

7. *Mr. Witty.*] Have you ever tried dams in the river to find out where the shingle came from?—No.

8. Seeing there is a dispute about it, could not a dam be made to find out?—Yes, it would save a lot of disputes.

9. At the bottom of the stream the Taieri backed up on to the land: what has caused it to back up—the fact of the wall being on the western side?—No, not necessarily.

10. You stated that the water backed up out of the river into the Silverstream?—I think I said it flowed out.

11. Has the wall been the cause of the backing-up; or, if the western wall was not there, would not the water spread and the Silverstream have a clear run out?—It would to a certain extent, but not to the whole, because the natural bank on the western side is much higher than the ground on the eastern side.

12. It has sent it back to a certain extent?—Yes. The level at Mr. Kirkland's house, which is on the river-bank, is 22 ft., and the level on the swamp is 11 ft., above sea-level.

13. *The Chairman.*] Is the swamp 11 ft. lower?—Yes, and there is a natural gap that the water comes through from Taieri River.

14. *Mr. Witty.*] Mr. MacGregor said that the Silverstream had converted Renton's land into a swamp. What was the state of that land before the wall was put up?—I could not tell you.

15. *The Chairman.*] How long have you been in the district?—About six months.

16. You do not know of the original work that was done?—No, I do not know anything about the ancient history of the place.

17. *Mr. Witty.*] You have been there practically only since the formation of the Board?—Well, I think the Board was formed about twelve months ago.