

7. Where will you get the money from?—It will have to be paid for out of revenue, but it will have to be constructed gradually.
8. You have a very fair knowledge of the Ohinemuri and the Waihou Rivers?—Yes, fairly good.
9. Have you Mr. Haszard's plan?—Yes. [Exhibit 41, plan.]
10. That is a plan showing the areas affected by the last flood?—Yes; it shows the land on which sediment has been deposited. It also shows the places where we took the samples from the river-bed.
11. The areas affected by the flood are shaded brown—a neutral tint?—Yes.
12. After the last flood, you went down the Waihou River to Netherton in company with Mr. Haszard?—Yes.
13. To examine for the purpose of this Commission into the question of what damage had been done?—Yes.
14. At Netherton, what did you find there—say, at the Netherton School?—We could not find any sign of this deposit there.
15. Did you notice how far the last flood had been up near to the school?—Yes, it just filled the drains; it did not get over the middle of the road.
16. Then, coming up the river, did you examine the portion of the river lying between Thorp's Bend and the next big bend?—Yes.
17. You found traces of deposit there?—Yes.
18. Where did that water come from: could you determine that?—I am quite sure that the water that affected Thorp's Bend came across from the Waihou River about a mile or so above the Junction, and flooded right over everything.
19. You took some samples?—Yes.
20. I want you to describe the method you adopted to take these samples?—Yes. I have a diagram here showing it. [Exhibit No. 42.] A description is given of the places from which the samples were taken.
21. I think those samples were handed over to Mr. Morgan, Director of the School of Mines, Waihi?—Yes.
22. And you received his report upon those samples as well as upon the others that were taken?—Yes.
23. In the course of your investigations did you find any indications of the solidifying of the bottom of the river?—None whatever; quite the reverse.
24. You know the large bank at the junction of the two rivers?—Yes.
25. How long has that been there, to your knowledge?—I do not remember the beginning of it. It was there when I first came to this district, about fourteen and a half years ago.
26. I think it is a fact that it has increased in size somewhat?—It has.
27. To what do you attribute that increase in size?—To sand and sediment getting into the eddying waters.
28. Is there a willow growing on it?—Yes, a dense mass of willows.
29. Do they play any part in increasing the size of the island?—Yes; that is what causes still water at low tide.
30. *Mr. Mitchelson.*] Were not some willows planted at the upper end of the island?—I put the willows at the upper end. I may explain why I put them there. About fourteen years ago that island was quite separate from the mainland. It appeared to me as if it were a block of bank that had fallen down by the weight of the willows. That was the way the island began. There was a flood in 1896 that got in behind that island, and altered the current of the Waihou River, and caused the beginning of the sandbank that is there to-day. To prevent a recurrence of the water getting in behind the island I put in the row of willows.
31. *Mr. McVeagh.*] You were County Engineer at the time?—Yes.
32. We may take it that the bank and willows impede the flow of waters from the Waihou?—Yes.
33. I think you superintended the construction of the groin?—Yes; we put up that groin for the purpose of training the current a little higher up the stream to scour away part of the mud-bank there. It did do that, and to some extent shifted it over to the other side.
34. How long ago was that?—Either in 1896 or 1901, I think.
35. That bank had been occasioning trouble to you?—That was the first appearance of the bank.
36. Was that bank, as far as you can say, in any way due to the deposit of silt tailings?—There was a lot of silt tailings on it—leaves, willow-branches, roots, and every imaginable kind of *débris*.
37. *Mr. Mitchelson.*] I suppose a good deal of it was ordinary Waihou River sand?—Yes, there was a good deal of it coarse sand.
38. *Mr. McVeagh.*] You are acquainted with the Waihou River above the Junction?—Yes.
39. And with the growth of willows upon the banks of the river?—Yes; I know both rivers fairly well.
40. What effect have those willows upon the Waihou River when it is in flood?—Reducing the cross-sectional area of the natural flow, it backs the water up. Not long ago there were one or two places that were not wider than 30 ft. between the branches.
41. Have you formed an estimate as to the extent the growth of willows retards the flow of the current in flood-time?—It must heap the water up feet higher than would be the case if the willows were not there.
42. Do you think it would retard the flow of the river by one-third?—It would be very difficult to say without measuring it.