

8. Take, first of all, the channel at the bar: is that a varying channel?—Yes.

9. Can you say whether from time to time it shifts any substantial distance?—I have had information from time to time that it does move about considerably. I should expect it to do so from the nature of the formation and from the nature of the winds that prevail on the coast.

10. Can you give the Commission any idea as to whether the conditions in regard to the river could be improved by a moderate expenditure?—There are two sets of conditions to be dealt with: there are some flats and banks inside the channel in the calm water which are naturally subject to interruption by flood, and there is the question of the bar, which is a separate question altogether.

11. In your opinion, would it be of any use to attempt to improve the conditions in the river unless you also worked at the bar?—As an economic problem I should say it would be useless.

12. *The Chairman.*] But could you get rid of the flats by dredging inside?—Yes, quite easily.

13. Then if the bar does not trouble shipping in getting in and the flats do, that would mean an improvement in navigation?—Yes, but the bar is the limiting factor. It limits the trade.

14. *Mr. Williams.*] The bar is a limiting point now?—Yes, because if you bought a steamer for the trade you would have to buy it with the limitations of the bar in view.

15. *Mr. Myers.*] Would it then be of any use, in your opinion, to attempt dredging in the river without also doing work—the nature of which I shall refer to—at the bar?—You can get any depth of water you like anywhere providing you like to spend the money to obtain it.

16. Can you say whether it would be of any advantage to attempt dredging at the bar without previously constructing training-walls?—No, it would be very inexpedient to make the attempt. If you were to attempt dredging at the bar the channel would be so frequently filled up that you would have to do the work over and over again, and then you could not depend upon its being available at the time you wanted it.

17. Would training-walls at the bar be a matter of great expense?—Yes.

18. When you say a “great expense,” of course you cannot give anything like an accurate idea. Is it a matter of a few thousand pounds, or thousands of pounds?—It is a matter of a great many thousands of pounds.

19. Can you say whether it is of any value to dredge what they call the sand-shoals at the bends of the river, and what will happen if they do dredge them?—They will have to go on dredging them.

20. *The Chairman.*] What would happen if they did not dredge them?—They would fill up.

21. Supposing you do not dredge them but leave them as they are, what is going to happen to the river—will the shallow places get shallower?—I cannot say that, because I cannot say when the process is going to stop. I do not know whether they will come to rest at a certain distance. They usually do so.

22. *Mr. Williams.*] Is the river more shallow than it used to be?—I do not know of my own knowledge.

23. *The Chairman.*] Supposing they are a foot or two more shallow than they used to be?—It may be that they have come to rest at that depth and will not get any shallower, because you have the velocity of the river to deal with.

24. *Mr. Williams.*] If the Harbourmaster in giving evidence says that in taking soundings he found that the river was shallowing, would you believe that?—Evidence of that kind is quite useless. Soundings must be properly connected with shore standards.

25. *Mr. Myers.*] Supposing on the bar you started cutting a channel, would you expect that channel to be any more permanent than any channel which has existed in the past?—No.

26. Why not?—Because there are the same influences at work to fill it up.

27. The evidence is that the present net revenue from the wharfages is about £1,600 or £1,700 a year. Can you express any opinion to the Commission as to whether any serviceable work in the river could be done with that expenditure?—I do not see how you are going to make a start if that is all the money you have got. You could not buy the plant.

28. Supposing you had a dredge?—Supposing you had the plant given to you you would have to keep it in repair and attend to the dredge. You would have very little for work.

29. Can you say whether a dredge with a wooden hull would be of any use?—A pontoon dredge or seagoing dredge?

*Mr. Williams.* It is supposed to be a dredge which propels itself and drags—a small drag-suction dredge carrying about 80 yards in its hopper.

30. *Mr. Myers.*] And the proposal is that the dredge should work on the bar as well as in the river?—If it is not a proper seagoing dredge it would sink, of course. You would want a vessel of some considerable size in order to be safe to work on the bar.

31. Could such a dredge be purchased for £8,500?—I should think not, from the figures I have recently seen. I should have thought it would have cost a great deal more than that. I am not prepared to say what you could do with a wooden hull, but I should think it would be a makeshift affair. I have never seen one of that description at work. The only ones I have seen of that kind at work are pontoon dredges, and you could not take one of those on to the bar.

32. Supposing you have two or three sandbanks or sand-shoals in the river at the bends, do those banks, apart from the dredging, vary as a result of floods in the river?—They generally do so.

33. *Mr. Weston.*] Have you specialized in river work, dredging work, or harbour-improvement work?—No, I cannot say I have specialized in any class of work.

34. And you say you have an intimate knowledge of the Manawatu River since 1876?—No, not an intimate knowledge. I first knew it in 1876.