xvii C.—14.

Commissioners satisfied themselves that slimy tailings were present in the sand-banks below Hikutaia, from which sand is removed for sale in Auckland. The evidence of the settlers who daily traverse the river, often at low tide, on their journeys in oil-launches with their milk to and from the Netherton Creamery, is conclusive that the river is reducing in width, that the deposits of tailing-sands cause them difficulty in approaching and lying at their jetties, and that there is in places some deposit on the bottom, with consequent loss of depth and of available section to discharge freshes.

## Junction to Te Puke.

Above Te Puke Wharf, for a distance of some two miles, to the Junction, the River Waihou has materially narrowed, and is only used now by shallow-draught scows and punts towed by small steamers and oil-launches. The change of the terminus of the Auckland steamers from the Junction Wharf to Te Puke, some seven years ago, has had a detrimental effect upon the river, owing to the absence of the scouring action of the twin propellers upon the loose bottom. An attempt was made to divert the current of the Upper Waihou over to the eastern bank at the Junction by the construction of a groyne from an island that had formed about some sunken willows; but the result has not been successful, and, aided by the large quantities of tailings brought down the Ohinemuri, the sands have deposited, forming shallows for some half-mile below the Junction, and making a bank at a place where, at the mouth of the Hape Creek, the deepwater channel used to exist.

## Junction .- Willows removal.

The mining tailings show largely on the Junction Island, and on the shoals, and to a very considerable extent upon the banks, which have made out in some places to an extent exceeding 30 feet, encroaching on the waterway of the river to that extent. Samples taken from the mid-channel show, however, that where there is the maximum run of water the bottom is composed of the natural Waihou sands, with but little addition of mining sands. This portion of the river at and below the Junction is also much burdened with the growth of willows. For some quarters of a mile on the eastern bank of the river, a little below the Junction, the Ohinemuri County Council, as a River Board, has cut down some of the willows with very beneficial results, affording an example of the advantage to be gained by trimming and removing the willow trees and branches.

Upper Waihou navigation.—Tidal effect, Junction - Upper Waihou.—Danger of diversion, Waihou to Piako.

The navigation of the Upper Waihou, from the Junction up to and above Te Aroha, is confined to small launches or tug-boats drawing light-draught barges. Apart from the serious encroachment on the navigable width by the willows here, there appears to have been little change, and any change that there may have been, except for a short distance above the Junction, cannot be attributable to the mining operations. The rise and fall of the tide at the Junction is about 3 feet, and the effect of the tide is now felt to some extent about five or six miles up the Upper Waihou. It is probable that the bed of the river has risen somewhat, raising the normal watel-level, and the retardation caused by the growth of willows is so serious that, unless some active steps are taken, there is a possibility that some day, in place of the flood-waters only as at present, a large portion of the river-waters may be diverted into the western swamps, and an alteration or diversion of its course might seriously affect the navigation of the Upper Waihou.

## REFERENCE CLAUSE 3.

## Remedial measures.

3. The third matter referred to the Commission was to ascertain what, if any, remedial measures can be adopted without injury to any other persons, corporations, or interests.