

foothills, bursting through a sand-ridge at Neal's (Section 45), and thence to the low-lying lands of the Pukaka district and the Maori reserve.

About the time the Tuamarina banks were erected one Smale, occupying the Peninsula, with assistance from the Spring Creek River Board, erected a bank extending from the railway-line along the right bank of the Spring Creek to a point beyond its confluence with the Wairau River. This work had the effect of stopping the flowing of the flood-waters of the Wairau River across the Peninsula, as they had been wont to do, reducing very largely the effective waterway in the river. The combination of this work with the banking of the Tuamarina River Board caused a constriction of the waterway, raising the flood-level and resulting in breaches of the banks in many places, the banking-up of the water in the Spring Creek, and materially increasing the flood damage. Realizing the danger likely to arise from this Peninsula bank, the Spring Creek River Board had in May, 1916, arranged to purchase the whole of the Peninsula in order that they might remove the banks. However, the flood of July arrived before the work was carried out, although a small cut had been made, which probably had some effect in lessening the flood-level. This bank is still in existence, and a source of danger. The small triangle below the Peninsula (Sections 84, 85, and 86) across the Wairau River is not included in any river district.

Banks erected by the owners on this land have materially contributed to the restriction of the waterway and the raising of the flood-level and consequent damage. Although the various Boards have spent large sums in maintaining their respective works, we note that they have allowed the waterways to be choked by the growth of willows, manuka, gorse, broom, and other vegetation, so that in many places, especially in the vicinity of the Peninsula, the waterway has been reduced, and in many places rendered entirely inadequate to carry off the flood-water.

One tributary of the Wairau River which is causing considerable anxiety is the Waihopai River. It is the largest tributary of the Wairau, and brings down a very large body of water, with a very sharp fall, heavily charged with detritus. It is building a fan at its junction with the Wairau River, which is causing it to deviate to the east, threatening to break into Gibson Creek and to flood the low-lying lands about Renwick, and thence to pour its waters into the Opawa.

In 1911 a considerable part of the water had actually found its way into Gibson's Creek. The Lower Wairau River Board, acting on the advice of the Government Engineer, erected several groynes at the confluence, which had entirely cut it off. The lowest and most important of these groynes was in 1916 maliciously cut by some persons unknown. Although this was immediately brought under the notice of the Board, no repairs were attempted until recently, after several minor floods had considerably enlarged the cut. The Board, now thoroughly awakened to the danger, made several unsuccessful attempts to repair the breach. Recently the stonework was very nearly completed, but, owing to failure to take reasonable precautions, a small flood has again undone their work, and the Renwick lands have been flooded. This we regard as a matter of extreme gravity, as at any time the whole river might change its course through this breach and flow via Renwick into the Opawa; and we doubt whether the present channel and bridges could carry the water of this river in flood, even if there were no flood on the other streams—viz., the Fairhall, Omaka, and Taylor.

Shortly after the construction of the groynes at the confluence of the Waihopai River, and avowedly in pursuance of the same object, and with a view to protecting the Board's reserve situate abreast of the breach, the Board erected further groynes in the vicinity of what is usually known as Conder's Bend. These, in addition to the objects stated by the Board, were said by various witnesses to have prevented the inflow of the Wairau into the Opawa to a marked extent, consequently throwing an increased amount of water into the Wairau. We are satisfied that this was the case in flood-time. Before the last of these groynes was completed the Spring Creek River Board sought to enforce the old injunction on the ground that the object of the work was to close the breach. The matter went as far as the Court of Appeal, and the case was dismissed. The Lower Wairau River Board ceased operations pending the decision of the Courts, and have not yet completed the work.