

1878.
NEW ZEALAND.

DAMAGE DONE TO PUBLIC WORKS BY THE RECENT FLOOD IN THE CLUTHA RIVER

(REPORT ON THE).

Laid on the Table by the Hon. Mr. Macandrew, with the leave of the House.

Mr. BLAIR to the Hon. the MINISTER for PUBLIC WORKS.

SIR,—

Wellington, 21st October, 1878.

In accordance with your instructions to procure a report on the damage done to public works by the recent flood in the Clutha River, I have the honor to submit the following, compiled from information telegraphed me by Mr. Ussher, Resident Engineer, Dunedin:—

Immediately on receipt of your instruction Mr. Ussher proceeded to Clyde *via* Naseby, then, as the road to Queenstown was impassable, he followed down the Clutha River and went to the Lake District *via* Invercargill.

As information on the subject was wanted in the least possible time this report must not be taken as complete, or absolutely correct in every particular. With your permission I purpose to have a detailed report prepared, as a permanent record of this the greatest flood that has occurred since the settlement of Otago.

BRUCE COUNTY.

The following is an approximate estimate of the damage done to public works:—

<i>Roads—including Small Bridges.</i>						£	£
Road and street, Kaitangata	...	...	...	...	...	1,150	
Kaitangata to Coal Point	...	...	...	...	...	200	
Road and streets, Stirling	...	...	...	...	...	200	
Stirling to Balclutha	...	...	...	...	...	700	
Total damage to roads	...	...	...	...	...	—	2,250
<i>Bridges.</i>							
Matau Bridge (moiety)	...	...	...	...	...	100	
Balclutha „	...	...	...	...	...	6,000	
Total damage to bridges	...	...	...	...	...	—	6,100
<i>River Works, &c.</i>							
Flood channel and gate	...	...	...	...	...	300	
Punt	...	...	...	...	...	100	
Total damage to river works	...	...	...	...	...	—	400
Total damage to public works in Bruce County						...	£8,750

The piers of the Matau Bridge only are injured; they will require to be strengthened. In the Balclutha Bridge two of the piers, the draw-bridge, and all the superstructure of the suspension spars, except one, are carried away. The end spars and the anchorages are however intact, and it is supposed that the remaining piers can be repaired.

CLUTHA COUNTY.

The following is an approximate estimate of the damage done to public works:—

						£
Roads, including small bridges, river-bank road, Inch Clutha	...	...	...	...	...	2,000
Interior roads, Inch Clutha	...	...	...	...	...	5,000
Streets in Balclutha	...	...	...	...	...	5,100
Total damage to roads	...	...	...	...	...	£12,100

<i>Bridges.</i>						£
Matau Bridge (moiety) ...	...	...	...	...	...	100
Balclutha Bridge (moiety) ...	...	...	...	...	...	6,000
Puernu Bridge and approaches ...	...	...	...	...	...	750
Total damage to bridges ...						£6,850

<i>River Works.</i>						£
Embankments on Inch Clutha ...	...	...	...	...	...	500
Protective works at Balclutha, rendered necessary through flood ...	...	...	...	...	...	6,000
Total damage to river works ...						£6,500

<i>Buildings.</i>						£
Post Office and Courthouse, Balclutha ...	...	...	...	...	...	200
Schoolhouse, Inch Clutha ...	...	...	...	...	...	500
Total damage to buildings ...						£700
Total damage to public works in Clutha country ...						£26,150

The second item above given, £5,000 for roads on Inch Clutha, is practically only a guess, as a large portion of the island is still under water, but from all appearances it is not too large.

The main bridges in this county connect it with the Bruce County, so they have already been referred to under that head.

The sum for protective works at Balclutha does not represent the actual damage done, but the amount required to prevent further encroachments on the town by the river.

TUAPEKA COUNTY.

The damage done to public works in the Tuapeka County is estimated approximately as follows:—

						£
Roads and small bridges ...	...	...	...	...	...	3,800
Teviot (Roxburgh) Bridge ...	...	...	...	...	...	7,200
Beaumont Bridge ...	...	...	...	...	...	8,000
Total damage to public works in Tuapeka County ...						£19,000

The Teviot Bridge, which was one of the finest looking structures in Otago, had masonry abutments and a laminated timber arch of 174 feet span. The superstructure is all gone, and the abutments are very much injured.

The Beaumont Bridge was erected by private enterprise, under an arrangement with the Provincial Government of Otago. It was a timber truss, resting on masonry abutments and piers. Not a vestige of it remains.

£5,000 was voted by Parliament last year for the purchase of the Beaumont Bridge, and negotiations thereon were pending between the County Council and the proprietors, Mr. Kitchen, at the time of the flood, but I understand the purchase was not completed.

VINCENT COUNTY.

The following is an approximate estimate of the damage done to the public works, roads, and tracks, including small bridges:—

						£
Cromwell to Kirtleburn ...	...	...	...	...	...	1,500
Kirtleburn to Cardrona (track) ...	...	...	...	...	...	250
Bendigo to Lindis ...	...	...	...	...	...	3,000
Cromwell to Alberton ...	...	...	...	...	...	1,000
Clyde to Lauder Creek ...	...	...	...	...	...	200
Cromwell to Nevis ...	...	...	...	...	...	300
Nevis to Upper Nevis ...	...	...	...	...	...	500
Tinkers to Drybread ...	...	...	...	...	...	100
Alexandra to Boundary Creek ...	...	...	...	...	...	300
Cameron's to Clyde ...	...	...	...	...	...	200
Clyde to Nevis ...	...	...	...	...	...	500
Watson's to Roughridge ...	...	...	...	...	...	200
Bendigo to Logan Town ...	...	...	...	...	...	50
Rocky Point to Hawea ...	...	...	...	...	...	250
Alberton to Hawea ...	...	...	...	...	...	200
Total damage to roads ...						£8,550

Clutha—Roads	...	...	...	...	...	12,100	
Bridges	...	...	...	...	...	6,850	
Various	...	...	...	...	...	7,200	
Total in Clutha County	...	...	...	...	...	—	26,150
Tuapeka—Roads	...	...	...	...	...	3,800	
Bridges	...	...	...	...	...	15,200	
Total in Tuapeka County	...	...	...	...	...	—	19,000
Vincent—Roads	...	...	...	...	...	8,550	
Bridges	...	...	...	...	...	10,690	
Various	...	...	...	...	...	700	
Total in Vincent County	...	...	...	...	...	—	19,990
Lake—Roads and tracks	...	...	...	...	...	26,940	
Total in Lake County	...	...	...	...	...	—	26,940
Total damage to public works	...	...	...	...	...	—	£100,830

Some of the damage above stated was liable to have occurred any year, so there is no necessity to make special provision for making it good. Leaving out these ordinary contingencies, the following will represent the amount of extraordinary damage which could not reasonably be foreseen or calculated on:—

							£
Bruce County	...	...	...	...	...	...	8,000
Clutha	„	...	...	...	...	...	25,000
Tuapeka	„	...	...	...	...	...	18,500
Vincent	„	...	...	...	...	...	18,000
Lake	„	...	...	...	...	...	23,500
Total	...	...	...	...	...	...	£93,000

Before proceeding to restore the works that have been damaged it is necessary to consider whether any improvement can be made in their location or character, and whether some of them may not be dispensed with altogether.

The line of the roads and positions of most of the smaller bridges in all the counties cannot well be altered, but I think instead of rebuilding the Clyde Bridge in its old site a new bridge should be erected near Alexandra. A bridge at this place is much wanted, and there is no necessity for two within seven or eight miles of each other. The piers of the Clyde Bridge might be utilized for a foot or horse-bridge.

The district on the northern side of the Clutha at Roxburgh (Teviot) is not yet closely settled, and there are considerable facilities for crossing the river by ferries, so I do not think there is an urgent necessity for the restoration of the bridge at present.

The unprecedented height of the flood in the Clutha and its tributaries show that the bridges crossing them must be built higher and stronger than has hitherto been considered necessary; the estimate of damage done cannot therefore be taken as the cost of restoration. Allowing for this, and leaving out the Teviot Bridge, I estimate the cost of making good the damage as follows:—

							£
Bruce County	...	...	...	...	...	...	11,000
Clutha	„	...	...	...	...	...	29,000
Tuapeka	„	...	...	...	...	...	15,000
Vincent	„	...	...	...	...	...	24,000
Lake	„	...	...	...	...	...	24,000
Total	...	...	...	...	...	...	£103,000

I have, &c.,

C. W. BLAIR,

Commissioner, Middle Island.

The Hon. the Minister for Public Works.

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1878.

Price 3d.]