

(red) could be removed to Tory Channel entrance, where a light of this order and description is much required, and will complete the lighting of this portion of Cook Strait.

If a light be placed on Cape Kidnappers, the light lately ordered for Napier Bluff will be unnecessarily powerful for that site.

We may here remark that the necessity for these alterations seems to us to have arisen from the want of following some such general system as is now proposed.

We recommend that in all future lights, lamps to burn Petroleum oil in lieu of Colza be supplied to the illuminating apparatus: this will result in a great saving in the annual cost of each light, without any diminution of power; and at ports where only small lights are necessary, the harbour master could attend to them without assistance.

We are unable to give more than the cost of the lantern and apparatus delivered in New Zealand, as the total cost of erection will depend upon the accessibility of the sites proposed, the whole of which we recommend should be carefully surveyed before any further steps be taken, as it may be found upon examination that in some instances an adjacent locality may be found more suitable than the site now proposed, accessibility of position greatly affecting both the cost of erection and that of maintenance.

It is of importance that, where it is practicable, lights should be placed seaward of a danger; that they should show all round seaward; that their elevation should not exceed 200 feet unless unavoidable; and that lighthouses should always be coloured so as to present the greatest contrast with the background.

Accompanying this report, we beg to forward a chart, shewing in colours the various lights proposed, and their situation, as well as the position of those already erected.

In considering this question of Lighting the Coast and Harbours of the Colony, we have been guided in our decisions by the information derived from careful perusal of Mr. Alan Stephenson's "Rudimentary Treatise on Lighthouses, &c.;" Messrs. Chance Brothers and Co.'s Tariff of Dioptric Apparatus; and the Report of the Royal Commission appointed to inquire into the Management of Light Buys and Beacons, 1861.

R. JOHNSON.

R. A. EDWIN,

Commander, R.N.

3rd April, 1873.

#### LIST OF PROPOSED COASTAL LIGHTS.

##### PART I.

No.	Name of Place.	Description of Light.	Cost of Apparatus and Lantern landed in New Zealand.	Remarks.	
1	Cape Maria Van Dieman	Flashing: white, every ten seconds ...	£ 3,550	An important position.	
2	Moko Hinou Islands, Hau-raki Gulf	Revolving: red and white, every minute	3,450		
3	Cape Farewell ... ..	Revolving: white, every two minutes ...	3,450		
4	Rugged Island, Foveaux Strait	Revolving: white, every two minutes ...	3,450		
5	Snares Islands ... ..	Revolving: white, every minute ... ..	3,450		
6	Nugget Point ... ..	Fixed: white ... ..	...		Already erected.
7	Dog Island ... ..	Revolving: white, every half-minute ...	...		Already erected.

##### PART II.

8	Cape Saunders ... ..	Revolving: white, every minute ... ..	2,350	
9	Banks Peninsula, Flat Point	Revolving: white, every minute ... ..	2,350	
10	Cape Campbell ... ..	Revolving: white, every minute ... ..	...	Already erected.
11	Cape Palliser ... ..	Revolving: white, every two and a half minutes	2,350	
12	Cape Kidnappers ... ..	Revolving: white, every half-minute ...	1,550	Third order.
13	Portland Island ... ..	Revolving: white, every two minutes ...	2,350	
14	East Cape Island ... ..	Revolving: white, every minute ... ..	2,350	Third order.
15	Motiti Island, Bay of Plenty	Flashing: white, every ten seconds ...	1,550	
16	Cuvier Island ... ..	Revolving: white, every half minute ...	2,350	Already erected.
17	Tiri Tiri ... ..	Fixed: white ... ..	...	
18	Sandspit, Firth of Thames	Fixed: red and white ... ..	...	Sixth order: erected by Provincial Government, Auckland.
19	Cape Brett ... ..	Revolving: white, every two minutes ...	2,350	Third order.
20	North Cape ... ..	Revolving: white, every minute ... ..	2,350	
21	Gannet Island ... ..	Revolving: white, every minute ... ..	1,550	Third order.
22	Cape Egmont ... ..	Revolving: white, every half-minute ...	2,350	
23	Mana Island ... ..	Fixed: white ... ..	...	Already erected.
24	Cape Farewell Sandspit ...	Revolving: white, every minute ... ..	...	
25	Cape Foulwind ... ..	Revolving: white, every minute ... ..	2,350	
26	Cascade Point ... ..	Revolving: white, every two minutes ...	2,350	
27	Chalky Island, Dusky Bay	Revolving: white, every half-minute ...	2,350	