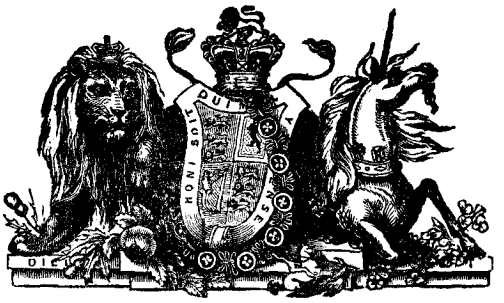

THE

# HAWKE'S BAY GOVERNMENT GAZETTE.

PUBLISHED BY AUTHORITY.

☞ All public Notifications which appear in this Gazette, with any Official Signature thereunto annexed, are to be considered as Official Communications made to those persons to whom they relate, and are to be obeyed accordingly.

DONALD M'LEAN,
Superintendent.

VOL. VI. SATURDAY, NOVEMBER 25, 1865. No. 34

## PROCLAMATION.

By His Honor, DONALD M'LEAN Esq., Superintendent of the Province of Hawke's Bay, in the Islands of New Zealand.

WHEREAS by an Act of the Provincial Council of Wellington, Session 3, No. 8, intituled, "An Act to amend and consolidate the law relating to Cattle Trespass and Impounding," and an Act of Session 8, No. 8, of the Provincial Council of the Province of Hawke's Bay, intituled, "An Act to Amend an Act and consolidate the law relating to Cattle Trespass and Impounding," Session 3, No. 8, of the Province of Wellington, it is amongst other things enacted that the Superintendent may, from time to time, by Proclamation declare any Pounds to be, or cease to be, public Pounds within the meaning of the said Act, and may, from time to time, in like manner appoint keepers of such Pounds.

Now, therefore, I, DONALD M'LEAN, Superintendent of the Province of Hawke's Bay, do hereby proclaim that the respective person and place hereinafter mentioned, shall be a Pound-keeper and public Pound,

Mr. MILES HUDSON, Stockyard, Wallingford.

Given under my hand and seal of the Province of Hawke's Bay, this Twentieth day of November, One thousand eight hundred and sixty-five.

DONALD M'LEAN,
Superintendent.

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Superintendent's Office,
Napier, Nov. 18, 1865.

IT is hereby notified for general information that

Capt. W. G. CELLEM,

has been appointed Harbour Master and Pilot for the Port of Napier. Appointment to date from the 3rd, inst.

DONALD M'LEAN,
Superintendent.

Superintendent's Office,
Napier, Nov. 20, 1865.

IT is hereby notified for general information that

Mr. JOHN HESLOP,

has been appointed Inspector of Cattle, under the provisions of the Diseased Cattle Act, 1861.

DONALD M'LEAN,
Superintendent.

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## CROWN GRANT NOTICE.

Crown Lands Office,
Napier, Nov. 22, 1865.

WHEREAS by a recent Act of the General Assembly it is necessary that all Crown Grants "shall before the same shall be delivered to the Grantee or other the person entitled to receive the same be registered," it is hereby notfied for general information, and in order to prevent any inconvenience arising from delay, that in future Crown Grants will have to be forwarded to the Registrar for registration, *after application*, and payment at this office of the fees due upon the same.

J. C. LAMBTON CARTER,
Commissioner of Crown Lands,

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Woodthorpe, April 17, 1865.

SIR,—Herewith I have the honor to lay before you the charts, numbered as per margin,* of the Ahuriri Lake, and Roadstead, and of Hawke's Bay, made in conformity with the terms of the contract entered into by me with the Harbour Improvement Commission, on the 24th December, 1864.

In laying before you the result of my survey, I shall draw your attention to the present condition of the Ahuriri Harbour and Lake, and to such important changes affecting it as are now taking place, and to such as have occurred within the last ten or twelve years; and I shall, with a view to simplify the subject as much as possible, divide it into four parts, viz.:—

1st. The Ahuriri Lake.
2nd. The Entrance to Port Napier and the roadstead.
3rd. The Rivers flowing into the Lake, and through the Ahuriri Plains, and—
4th. Hawke's Bay.

First: The Ahuriri Lake, illustrated by chart No. 1.

You will gather, from the soundings marked on the chart, that this sheet of water is nearly of a uniform depth, excepting only in places where it is influenced directly by the action of the tide, or by that of prevailing strong winds; the one forming channels, the other sand and mud banks. The greatest depth of water is from 7 feet to 9 feet 6 inches at high spring tides, with a soft, muddy bottom, nor am I able to discover that a greater or lesser depth was ever known to exist.

I must draw your particular attention to the formation of mud flats and sand banks now going on, on the southern side of the lake, the cause of which formation, I venture to suggest, will be found in the partial deposit, by the combined action of the west and north-west winds, and flood tide of earth washed down by the Tutaekuri River when in flood; the accumulation added to by the great disturbance created on the bar outside, and upon the whole of the lake exposed to the action of those winds and which are the prevailing winds during the spring of the year, when freshets are most frequent. It is worthy of remark that, during a heavy north-west gale, the water in the mouth of the harbour, on the bar, and in all the exposed parts of the lake, is discoloured, as in a fresh, owing to the stirring up of the bottom by the action of the wind; and there can be no doubt that the effect produced by the accumulation of matter thus thrown by the aid of the flood tide on the banks of the southern bight of the lake, is sensibly felt in the course of time. It is to the gradual action of these causes to which I beg to draw your attention, as they appear to be the great and primary principles at work, in the slow, but sure, filling up of the lake. For it would seem that the process is going on, not from the bottom upwards, as might be inferred, but from the side inwards, possibly, but not perceptibly assisted by the upheaval of earthquakes.

There does not appear to me to be any particular channel in any part of the lake, that piece of water being, as I said before, of a nearly uniform depth. It is now possible to cross at high water to the western side from Napier, in almost any course from Battery Point, in from 3 feet to 9 feet of water. Some ten years ago this could be done by taking Onepoto for the starting point. It will also be observed that the Tutaekuri River used, about that time, to cross the mud flats on the line marked K.

The water round the small island lying off the Eastern Spit shoals gradually away on either side, until it attains its greatest depth, but where the channel is confined between "Long Point" and the Sand Spit just off that point on the west side, there, by the increased force of the tide, the water deepens to 10 feet, for a short distance, until it again expands. It is to be noted that in all cases where the flow of the tide is confined between obstructions, as in the above instance, there will be found a deeper channel.

There are numerous sand spits, or shell spits forming off Charlton's Spit, although

* Chart No. 1, of Ahuriri Lake, scale 20 chains
Chart No. 2, of Port Napier and Roadstead, scale 10 chains
Chart No. 3, of Hawke's Bay, showing Ahuriri Plains, scale 1 inch to 1 mile.

the tide just there runs stronger than anywhere else inside the lake.

It will be seen by reference to the charts, that the ebb and flow of the tide is from south to north, and from north to south in the bay, and that its greatest force is felt just where the mouth of the lake now is; and that so long as the tide ebbs and flows in that direction, so long will a great force of water press upon the sand spit, forming the lake, at about that particular spot; and as the rate of the flow of the tide through the entrance is from 6½ to 7 knots, it is clear that the action of the flood and ebb tides upon the entrance must be something like that of a force pump, the rush of water being so tremendously strong; and I have no doubt that that force may be used to any extent, for the purpose of opening new channels and of keeping open old ones.

Secondly. The Ahuriri Roadstead and Entrance to Port Napier, illustrated to a scale of 10 chains to 1 inch on Chart No. 2.

The Rangitira sand-bank, which is the particular feature of this harbour entrance, is subject to great changes, shifting its position under the influence of heavy gales of wind. It has been known to extend right across the entrance, so as to render the passage of vessels exceedingly dangerous; but its general position I believe to be about where it is marked on the chart.

The rise and fall of the tide ranges from three feet four inches to three feet seven inches; ordinary springs from four feet to four feet four inches; occasional high spring tides produce a rise of four feet six inches. The highest tides recorded by Mr. Murray (to whom I am indebted for these figures) is four feet eight inches, the rate of flow being as before stated, from 6½ to 7 knots per hour at the narrowest part of the entrance.

It will appear by comparing the chart now submitted to you, made by myself, with that made by Mr. Park in 1850 and with that made by Captain Drury of H.M.S.S. Pandora in 1855, that the entrance to Port Napier is undergoing great and rapid changes; for, according to the charts made by those gentlemen, the width of the entrance was in their time from 6 to 7 chains: now, according to the chart made by me, it is 13 chains, having increased to twice its width in 15 years—a very rapid change indeed. The depth of water is materially affected by this change in the width of its passage; for whereas by Capt. Drury's soundings the greatest depth was 5 fathoms in 1855, now I find in 1865 the greatest depth to be four fathoms, from which data it would seem that as the entrance to the lake widens, so also does it shallow, and that the quantity of water is not affected by the increase or diminution of the width of that passage, from which significant fact some very important conclusions may be arrived at affecting the contemplated harbour improvements.

The direction of the ebb tide rushing out of the harbour was, about a month ago, due North, but it is subject to deflections according to the position of the bar or the Rangitira Bank.

The "Iron Pot" appears to have been formed by a tidal eddy and to be maintained alone by that cause, and I am inclined to think that any interference with that natural condition of things must result in its filling up so as to be useless for shipping purposes. It is evident from the following table of soundings (as per margin)* taken in 1862 and 1865, that since the commencement of what are called the "Harbour Improvements" a very great change for the worse has taken place in this interesting locality; at all events it can only be maintained in a useful state at an enormous first and an annual expenditure.

The shoals just inside the entrance shift under the influence of high floods and heavy seas, but return to their normal position upon the subsidence of the disturbing cause.

Thirdly. The rivers flowing through the Ahuriri Plains and into the Lake.

The Native chiefs, owners of the Ahuriri Plains, strongly opposed my taking levels over that line of country, upon the ground that, somehow or other, that operation was connected with the introduction of steamers into their rivers. Mr. Commissioner Cooper was present at the time of these objections being made, and to him I referred the matter, but that gentleman did not appear able to make any impression upon the objectors in favor of the levels.

I have, however, taken some few levels and measurements, from which you will gather that the fall of the Ahuriri Plains is from West to East, and that from North to South or South to North there is no material inclination, at all events not sufficient to overcome the natural tendency of the rivers flowing through the lower part of the Plains to flow into the sea at due East from their sources, except in the case of the Tutaekuri river, if after all exception may fairly be taken to that river, which for the last two miles of its course runs from South to North, upon which line the fall is slightly more than between the point of its deflection and the sea, going East.

A section line drawn from Pakowai to Mr. Rhodes' flats will show that the bottom of the Ngarururo River at Pakowai, is very much lower than that of the Tuki Tuki on Rhodes' flats; in fact, it is some feet below high water mark at Awapuni, for by measurement I find that the North bank of that river at Pakowai is 18 feet above low water mark, and that the depth of water below that again is about 9 feet, and that the rise and fall of tide is about 2 feet

* Iron Pot. { 1862—11 feet to 12 feet / 1865—9 feet to 10 feet } Deepest

6 inches. The Tuki Tuki river bed at the point B is about 26 feet above high water mark at the point C. It is to be observed as a consequence of this that the fall of the Ngaruroro from Pakowai is very gradual and that there is but a slow run in the water to the sea; whereas the Tuki Tuki river runs with great force from B to C, although the distance is shorter than from the point A (Pakowai) to the sea at Awapuni. The Ahuriri Plains, then, may be considered to incline gradually from West to East.

The mouth of the Ngaruroro and Tuki Tuki rivers is for the present at Awapuni, as shown on Chart No. 3, but as it shifts between that place and Waipureku under the influence of heavy floods and high seas, it is difficult to say how long it will remain where it is now. The depth of water in the channel inside the bar is from 1½ to 2 fathoms at high water, on the bar from 7 to 9 feet. It is at best, however, a dangerous passage and requires great caution and skill on the part of masters bringing in small craft.

The depth of water in mid-channel up the Ngaruroro from the Ferry to Pakowai is about 9 feet.

The Tutaekuri river has a depth of about 9 feet from the first bend to Hallett's bend, where it shoals from 7 to 4 feet under the Meanee Bridge. The fall from "Hallett's Bend" to the junction with the Lake is 2 feet 39-100, and the fall from Meanee Bridge to the sea will be in an Easterly line about 1 70-100.

The "Waiohinganga" or Petane river does not seem to have much influence on the lake; its greatest depth at high water between its confluence with that piece of water and "Villers'" is about 8 feet, beyond which point it is not much affected by the tide. In floods this river runs out to sea at Petane and the channel running into the Ahuriri Lake is then only practicable for boats when the fresh is at its highest; but at any time that channel carries off but a portion of the waters of this river, as a great quantity of water must necessarily filter through the loose shingle beach, which bars out the sea on the subsidence of the floods.

Fourthly. Hawke's Bay, between Kidnappers and Waikari.

Offers no particular feature, as likely to affect the improvements of Port Napier, worthy of note. The soundings taken by me are materially the same as those taken by Capt. Drury 10 years ago, and I am not able to discover any new rocks or shoals or other remarkable alterations as having taken place since that time, nor do the frequent shocks of earthquake which have occurred within that period seem to have effected the slightest change in the bottom of the bay.

I trust I have succeeded in conveying to the Harbour Commission a clear idea of the present state of our harbour, and that the charts will prove entirely to your satisfaction. I have spared neither time, trouble or expense in this matter, so as to secure as accurate results as possible; nor have I neglected to obtain all available information upon the subject. Mr. Murray has kindly furnished me with every assistance, both statistical and material, which I have required from him, and I am indebted to him for much valuable information and some practical hints.

I have the honor to be,
Sir,
Your very obedt. humble Servant,

O. L. W. Bousfield,
Surveyor.

H. S. Tiffen, Esq.,
Chairman Harbour Commission,
Napier.

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