

Wainuiomata Lower Dam

Evening Post 20 Apr 1878 City Council

The adjourned fortnightly meeting of the City Council was held on Thursday evening. Present the Mayor and all the Councillors excepting Councillor Moss. The Finance Committee made an interim report. After advising that arrears of rates, not recoverable, amounting to £306, be written off, also that all rates should be struck as early as possible, and stating that a reduction in next year's rate could not be recommended, the report proceeds:- "As it will be absolutely necessary for the Council before long to take steps to obtain from the Legislative powers to borrow another considerable sum of money for the purpose of carrying out the various important public works contemplated, viz., Te Aro reclamation, drainage, sewage, increased wharf accommodation, increased water supply, &c., the committee would strongly urge upon the Council the advisability of obtaining the services of Mr Clark in devising and laying out a scheme for a further water supply as a necessary adjunct to the drainage scheme which he is now elaborating, ...

Evening Post 25 Apr 1878

We have very much pleasure in announcing that arrangements have been made for Mr Clark, C.E., to furnish the City Council with a report on the best available means of extending and augmenting the water supply of this city. Mr Clark, with the City Engineer, Mr Baird, will leave town to-morrow afternoon, going by rail to Kaitoke, and proceeding thence by road to Pakuratahi, which will be the limit of their journey. Taking the Pakuratahi River and its tributaries as the most distant point from which it would be practicable to bring water into town, Messrs Clark & Baird will work back to town by degrees, making a careful survey of each river or stream which appears at all likely to prove suitable for the purpose. The elevation of the stream, volume and quality of the water, &c., will be tested, and the question whether it would be advisable to bring the water into town by aqueducts, pipes, flumes, or otherwise, will receive due consideration, as also the practicability of the country through which the aqueduct, &c., would pass for the purpose, and the best route to be taken. We are very much pleased to be able to state that this important and most necessary step has been taken so promptly.

Evening Post 29 Apr 1878

The City Engineer, Mr Baird, returned from Pakuratahi (not "Palmerston" as stated by a contemporary) on Saturday night, leaving Mr Clark still up country. Mr Baird, having obtained various aneroids and other instruments required for the purpose of ascertaining the altitudes of the various possible sources of extended water supply, started up country again this morning. Messrs Baird and Clark are expected back in Wellington to-morrow night. They have worked downwards from Pakuratahi so far as Belmont, and to-day are engaged in examining the streams in that neighborhood, and thence to the Hutt.

Evening Post 30 Apr 1878 Mr Clark in Search of a further water supply

Mr Clark, C.E., and the City Engineer, Mr Baird, returned last evening from their expedition in search of an extended water supply for this city. It will be remembered that the two gentlemen started on Friday afternoon on their expedition, and that Mr Baird returned on Saturday evening, making a fresh start yesterday morning, and rejoining Mr Clark at the Hutt. Previous to going out the second time, Mr Baird made arrangements for hourly barometrical observations to be taken in town, in order that in testing by barometer the respective altitudes of the various streams visited, any possibility of error through barometric perturbations caused by atmospheric changes, might be eliminated. The wisdom of this precaution will appear in the sequel. Messrs Clark and Baird, as we mentioned in a former issue, began their operations at the farthest point deemed practicable – the Pakuratahi River – and worked steadily backwards to town. **The Pakuratahi River.** The eminent suitability of the Pakuratahi River, in every respect but one, was accepted at once. There was an ample volume of water to supply a population of any magnitude to the end of time, and the water was found to be of the purest quality, while the elevation was sufficient for all purposes. The only single drawback was its excessive distance from town, which Mr Clark considered would involve so very heavy an expense as to place it practically outside the list of sources available for the present. No doubt at some future date, when the present population may have increased tenfold, this outlay will be undertaken readily, and will not be felt too heavy a burden, as with the present or even a largely augmented population it would be. **Akatarawa Stream.** The next stream visited was the Akatarawa, a tributary of the Hutt River, in fact the largest confluent of the latter, supplying nearly half its whole volume. It flows from the direction of Waikanae towards the Hutt, and enters that river about twenty miles from town. Our readers may remember it was strongly recommended in our columns by Mr Cruickshank. This stream also was found all that could be desired in respect to volume and quality, its distance from town moreover being little more than half that of the Pakuratahi. Unfortunately, however, a careful test of its elevation proved this to be insufficient to give the amount of fall requisite to bring the water into Wellington by gravitation at the necessary pressure. **Mungaroa River.** The Mungaroa River was the next examined, Messrs Clark and Baird ascending both branches for some miles through the bush. They found that while the volume of water was ample and its quality fair, although inferior to that of the streams previously examined, it was impossible to obtain within any reasonable distance of town the degree of elevation required for the purpose sought. **Belmont Stream.** The Belmont Stream was found to be of the purest possible quality and of good volume, while its comparative proximity to town was very much in its favor, but at no point within practicable reach could an altitude be obtained sufficient to fulfill the hydraulic requirements of a supply. **Hutt River.** The Hutt River, while of course ample in quantity and excellent in quality, was found on very slight examination to be unsuitable for the purpose, as at no point within 30 or 40 miles of town could sufficient elevation be secured. **Korokoro Stream.** The last point visited was the Korokoro stream, which flows into the harbor near Petoni. Messrs Clark and Baird followed the course of this stream upwards for several miles, through very rough country and bush. The result of a careful examination was that Mr Clark estimated the volume of the stream, even at the present dry season, and after a protracted drought, to be fully 2,000,000 gallons per diem, and its available altitude, at a distance of between two or three miles from its debouchement into the bay, to be 350ft by barometer, subject to correction by barometric fluctuations. The quality of the water also was found to be excellent. Hence the practical effect was that a supply, yielding two millions of gallons daily, could be obtained at a distance of about nine miles from the centre of the city, at an elevation which, on allowing for barometric corrections, has been found to be about 270ft., the great fluctuation of the mercury yesterday having made a difference of nearly 80ft in the apparent height, which, but for the wise precaution alluded to above as having been taken by the engineers, would have passed undetected. This height, however, is considered practically sufficient to bring the water into town by gravitation, making due allowance for friction. It would be conveyed in iron pipes, first along the valley of the stream itself so far as the railway, and then along the line of the latter into town. So far, therefore, the prospect of obtaining an additional supply at reasonable cost appears to be a favourable one. **Further explorations.** Messrs Clark and Baird purpose, if the weather permit, starting again to-morrow to make a careful examination of the streams in the neighborhood of the present reservoir,

or within a moderate distance, with the view to ascertain whether a supply might not be obtainable by tunneling through to the large reservoir from some of the streams to the westward of Wellington. If this could be done at less expense than that of bringing the water from the Korokoro in iron pipes, provided the volume were equally ample and the quality as good, this alternative would be in many respects preferable. In conclusion we have to express our acknowledgements to Mr Clark and Mr Baird for the full and courteous explanations with which they have favored us.

Evening Post 06 May 1878

Mr Clark, C.E., and the City Engineer have decided that as the work preparatory to the publication of the drainage report is so nearly finished, they will not make another start on their expedition in search of an extended water supply for this city until the other work is out of hand, unless any unforeseen delay should take place in the latter, which, if it should occur, will be utilized as on the former occasion.

Evening Post 16 May 1878

Mr Clark, C.E., and the City Engineer, Mr Baird, start from town to-morrow morning, weather permitting, for Wai-nui-o-mata to examine a stream in that locality which has been recommended as very suitable as a source of extended water supply for this city. The stream in question which flows into the sea in Palliser Bay, is stated to possess ample volume and excellent quality, while it is thought that it could be brought into town at an expense very little, if at all, greater than the Koro-koro stream. The plan in that case would be to convey it by a tunnel through the hill which lies between it and the harbor, then across the Hutt valley and river by pipes into town. The distance is estimated as only about four or five miles further than the Koro-koro stream, and the watershed is Crown land.

Evening Post 17 May 1878

We mentioned yesterday that Mr Clark, C.E., and the City Engineer were about to proceed to Wainui-o-mata today to inspect a stream there, and we explained how it was proposed to bring the water into town if it proved suitable. Messrs Clark and Baird started early this morning for Wainui-o-mata, and are expected back again late this evening.

Evening Post 18 May 1878 Water Supply Extension – Messrs Clark and Baird's Expedition

Mr Clark, C.E., and the City Engineer, Mr Baird, returned from Wainui-o-mata last night. The result of their expedition is considered the most satisfactory of any yet attained in the direction of obtaining an extended water supply for this city. The volume of the stream is found to be ample for all purposes, in fact it would afford an abundant supply of water to the city of London itself. The minimum flow is roughly estimated at from 40 to 50 millions of gallons *per diem*, while during the rainy seasons this is more than doubled. Hence the quantity is all that could be desired, and the quality is unexceptionable as to purity. Moreover, as we mentioned previously, the watershed is Crown land, and thus obtainable on reasonable terms, although at the point from which the water would be taken the river runs through private property – that of Mr Sinclair, from whose mill it is distant about a mile and a half. The altitude, as roughly calculated by barometer, was apparently about 450ft., but the corrections rendered necessary on comparison with the fixed barometers in town, owing to the fluctuations in the atmospheric pressure yesterday, reduce this by almost 150ft, leaving the approximate elevation about 300ft. This, however, would be quite sufficient for the purpose, and it is considered worth while now to ascertain the exact altitude by leveling, which will be done as soon as possible. The works which would be required to bring the water from this source into town, although necessarily representing in the aggregate a rather formidable sum, would not be of an expensive nature, comparatively speaking. At the point from which the water would be taken the stream is about 40ft wide. A weir of simple construction and about 20ft high in all would suffice. The sides of the stream course are perpendicular rocky walls about 45ft in height, thus the natural features are eminently adaptable to the construction of a basin at small cost. The next work would be a short tunnel about 15 or 20 chains in length through a high spur which extends in a south-easterly direction from the main range, and to go round which, with iron pipes, would be both costly and inconvenient as causing a loss of "head." After passing through this tunnel and crossing over an intervening valley, either by an open aqueduct or in 24in pipes, a second similar spur will have to be passed through by another short tunnel of about the same length as the first. The Wainui-o-mata Flat then would be reached, and, until the exact level of that locality is ascertained, it is uncertain how it would have to be crossed, whether by iron pipes, aqueduct, or flume. Next comes the heaviest work on the whole line, the tunnel through the main range to the Hutt Valley. This tunnel would be about 40 chains long, and would cost probably from £6000 to £7000. Emerging from the tunnel, the water next would enter a series of cast-iron pipes, 2ft in diameter, by which it would be conveyed all the remainder of the distance into town. After passing over a tract of level ground, including the racecourse, the Hutt River would have to be crossed near its mouth by an aqueduct of some description. If the proposed branch railway from Petoni to the racecourse should be carried out, the waterpipes could pass over the railway bridge, and then continue along the branch railway to its junction with the main line. In any case, however, the water would be carried from the mouth of the tunnel in as direct a course as possible to the railway at Petoni, and thence along the line into town. The total distance is estimated at about 15 miles. Of the cost only a very rough general approximate estimate of course can be formed at present. Taking the necessary works from the time the water leaves the stream, there would be somewhere about a mile of tunneling and about 14 miles of 24-inch iron pipes. The cost of the tunneling would depend to a great extent on the nature of the material to be cut through, the size, shape, &c. Mr Clark estimated the cost of the main drainage tunnel, a mile and a quarter in length, at £22,000, but the water tunnel would not need to be so large or so expensively constructed, and it is possible that the mile of tunneling might be done for £10,000 or £12,000. The pipes of cast iron, 24 inches in diameter, and the work of laying them, would cost about £6000 per mile, or taking the length of pipes at 14 miles, about £84,000 in all, to which if £10,000 be added as the cost of the tunnels, the total sum required would be about £94,000, exclusive of the cost of the weir, and of the land at the stream, which it is thought might be brought within £6000. In that case the total cost of the work, by which an ample supply for several generations would be provided, might be set down in round numbers at £100,000.

Evening Post 20 May 1878 The Suggested Wainui-o-mata Water Supply

To the Editor of the Evening Post. Sir, With reference to an article which appeared in your issue of the 18th inst., giving an account of my proceedings in connection with a scheme for obtaining a supply of water from the Wainui-o-mata, I feel it necessary to say that it was entirely unauthorized by me and will feel obliged by your inserting this letter in your paper this evening, I am., &c., W. Clark, C.E. [Although the publication of the information contained in the article in question was not directly authorized by Mr Clark, yet it was obtained from the most reliable sources and being on a subject of great public interest we of course at once gave it the utmost publicity – Ed. E.P., 20th May, 1878.

Evening Post 23 May 1878

Mr Clark, C.E., and the City Engineer were occupied yesterday in examining the various streams and springs on the Wadestown side of the city, including a branch of the lower Kaiwarra stream, but they found nothing which fulfilled all the requirements of the case. Mr Clark started again to-day for Wainui-o-mata, with some men to construct a temporary weir across the stream about two miles above Mr Sinclair's mill for the purpose of accurately gauging the volume and flow of water. The weir will be built of timber in the usual way adopted for such a purpose. A similar weir also has been constructed on the Korokoro stream. The one at Wainui-o-mata will take probably several days to construct owing to the large size of the stream. Some further observations as to altitude also will be taken by barometer, but the accurate height will be ascertained so soon as possible by leveling. So far, the choice among the various eligible sources from which an extended water supply may be obtainable appears to be among the Wainui-o-mata, the Korokoro, and the South Karori streams; but a large amount of additional information will be required before Mr Clark will be in a position to make an authoritative report recommending the adoption of one or other of the plans indicated. This information necessarily will take a considerable time to procure.

Evening Post 19 Jun 1878 Mr Clark and the Water Supply

The following telegram was received this afternoon by His Worship the Mayor from Mr Clark C.E.:- "Auckland, 19 June. The Mayor, Wellington. No engagement here at present. Cannot complete report on water supply before 25th. Will it suit the views of your Council if completed in England? – W. Clark. The Mayor referred this telegram to the City Engineer, who replied in the following memorandum:- "It will take at least 9 days to complete the information required by Mr Clark and there will be further delay in forwarding it to Auckland. – J. D. Baird." The Mayor accordingly drew up a memorandum to the effect that it was undesirable to detain Mr Clark any longer in Auckland, as such detention would involve very serious expense. This memorandum was signed by the Mayor, Councillors Macdonald, Allan, Moss, Maginnity, Allen, George, and Hunter, expressing approval of the proposed course, Councillors Dixon and Greenfield recording their dissent. It is understood that a telegram will be sent to Mr Clark this evening, authorizing him to complete the report in England as it would then be in ample time.

Evening Post 20 Jun 1878

Councillor Dixon requests us to state that he signed the memorandum in reference to Mr Clark's telegram, yesterday, by mistake, in the wrong column, his name consequently appearing as a dissentient instead of among those approving the proposal that Mr Clark should be allowed to complete his drainage report in England instead of being detained in Auckland unnecessarily, at an expense of at least £500 to finish it, there being no immediate hurry in the matter. We understand that Councillor Greenfield signed in the "dissentient" column also by mistake, and that he approves the course suggested. Of the other two members of the Council, Councillor Fisher declined to sign at all on the ground that he "objected on principle to Round Robins," although he quite approved the proposal; and Councillor Diver, we believe, also approved, although he had not time to sign the memorandum. Thus the Council appears to have been unanimous for once, and, in our opinion, on the right side.

Evening Post 25 Jun 1878

Mr Clark, C.E., has asked the Corporation to instruct the Agent-General to have his reports on the water supply printed in London and to pay him his fees. No decision as yet has been arrived at in the matter by the City Council.

Evening Post 06 Nov 1878

The City Engineer, Mr Baird, has just completed the plans and sections of the two alternative schemes suggested by Mr Clark for an extended water supply. The two sources finally decided upon by Mr Clark as the most eligible were, it will be remembered, the Karori and Wainui-o-mata streams respectively, and some very satisfactory preliminary tests were made, a reserve of the watershed also being applied for. Since Mr Clark's departure Mr Baird has had all the necessary plans, sections, &c., prepared, to be forwarded to Mr Clark in order that he may prepare a complete report on the subject. These plans will be laid before the Waterworks Committee of the City Council at a meeting to be held to-morrow, and if the committee approve they will be sent to Mr Clark by the outgoing mail. The Wainui-o-mata is estimated to yield 15,000,000 gallons daily. The Karori stream, which would be conveyed by a tunnel about a mile and a half long from South Makara into the large reservoir, their being an ample fall, is calculated to afford 1,300,000 gallons daily, or more than double the present supply, therefore probably would suffice for many years, while its cost would be only about one-tenth of the Wainui-o-mata scheme.

Evening Post 08 Nov 1878 City Council

The City Council met yesterday afternoon as a Waterworks Committee. Present – The Mayor, Councillors Maginnity, Fisher, Hunter, Greenfield, and Miller. The City Engineer presented his reports on the alternative schemes for an extended water supply from Wai-nui-o-mata or Karori. We have a very full summary of this report several days ago. A long discussion took place as to whether Mr Baird's reports should be forwarded to Mr Clark, C.E., for his advice as to which of the two plans should be adopted. Some of the Councillors contended that the resolution previously passed by the Council was to this effect, but the majority held that it was intended only to obtain some general advice on the matter from Mr Clark while he was detained in Wellington pending the printing of his Drainage Report, and that it was not contemplated that an elaborate scheme should be devised by him. Mr Baird, on being asked whether either of his plans could be carried out with the professional skill obtainable locally, replied in the affirmative, adding that the only question proposed to be submitted to Mr Clark was, which of the two alternative schemes was the preferable one to adopt. It was resolved, on the motion of Councillor Fisher, that the City Surveyor report on the alternative plans, and furnish estimates of their respective cost. It was decided that the question as to what sum should be paid Mr Clark for his past services in connection with the water supply extension, should be referred to the Council. The Committee then adjourned.

Evening Post 28 Feb 1879 Waterworks Committee

... In reply to a question, the Mayor said the Council had unlimited borrowing power for water supply. The question now under consideration was not the desirableness of utilizing the Karori or Wainui-o-mata streams, but whether filter-beds were necessary, and if that were answered in the affirmative, whether the plans submitted by the City Engineer should be adopted...

Evening Post 11 Mar 1879 Notice to Carters

Tenders will be received up till noon of Wednesday, 12th March, for removing about 440 tons of Waterworks Plant, now landing ex 'Loch Fergus', from Queen's Wharf. Particulars as to delivery, &c., on application. The lowest or any tender not necessarily accepted. E. W. Mills, Hunter-street, 10th March.

Evening Post 21 Mar 1879

Accounts amounting to £6239 6s 4d, including £3375 for progress payment to Mr E. W. Mills on account of waterworks plant just landed, were passed by the City Council last night.

Evening Post 09 Apr 1879 Wellington City Council – Contracts for supplies

Tenders will be received by the undersigned till 4 p.m. of Thursday, the 17th instant, for the supply, either separately or together, of the undermentioned articles, in such quantities as may be required, for a period of twelve months ending 31st March 1880:- Kerosene and other articles for street lighting. Pipes, lead, oil, plugs, coals, rope, &c., for water works. Tools, nails, gratings, bricks, drain-pipes, oils, &c., timber of different kinds and sundries, for general purposes. The materials and tools are to be the best of their respective kinds. Full particulars may be obtained, and samples seen, at the office of the City Surveyor. Charles C. Graham, Town Clerk.

Evening Post 25 Apr 1879 City Council – Proposed Additional Water Supply

The following letter from the City Engineer was read:- “I have the honor to draw your attention to the necessity that exists for taking immediate steps for increasing the water supply. During the present season we have managed to hold our own, and the reservoir has never had less than 33ft 5in of water, but we are extending the water mains, and, of course, there will be a much larger consumption next summer. A larger supply will also be required when the drainage scheme is carried out. There are three courses open to the Council as follows:- **1st**. To construct a second dam just above the present reservoir, which would also act as a silt basin. It will enclose about nine millions of gallons of water, which, during the winter months goes to waste, and will cost £4594. **2nd**. To tunnel through the dividing range between the Kaiwarra and South Karori streams; the length of tunnel would be about 105½ chains, and an open cutting of 20 chains. The South Karori stream has a flow equal to about 1300,000 gallons per 24 hours. I estimate the cost of this work at £18,580; this and the former proposition could be carried out together. **3rd**. To bring the water in from Wainui-o-mata, where there is almost an unlimited supply, to be obtained at an elevation sufficient to give 300 feet of pressure in Wellington. When the stream was gauged by Mr Clark it gave about 15,000,000 gallons per day. I estimate the cost of the works required to carry out this scheme at, in round numbers, £100,000. The South Karori, in addition to our present supply, allowing a consumption of 50 gallons to each person, would be sufficient for a population of 34,000. The Wainui-o-mata, in addition to the present supply, allowing the same quantity, would be sufficient for a population of 308,000. If we had the latter, there is no doubt a very large revenue would be derived from water as a motive power. It is entirely a financial question, and one for the Council to decide, which of these schemes it would be most advisable to carry out.” It was resolved that the report should be considered by the Water Supply Committee at their next meeting, several members expressing a hope that the matter would be dealt with in a large and comprehensive spirit, and that a supply would be obtained sufficient to meet the requirements of the city twenty years hence.

Evening Post 30 Apr 1879

The Waterworks Committee met yesterday, and decided to recommend that an additional water-supply should be obtained from Wainui-o-mata. The question of filter-beds was postponed to next meeting.

Evening Post 05 Jun 1879

A deputation consisting of the Mayor, Councillors Hunter, Logan, and Young are about to wait on the Government to urge again the request which was made by the Corporation nearly a year ago that the watershed of the Wainui-o-mata stream near its source might be reserved from sale, in order that the water supply contemplated being obtained thence might be protected from pollution. The land itself is said to be of little value. The City Engineer is preparing a plan of the route to be taken by the waterpipes in order that a right of passage may be acquired under the provisions of the Public Works Act.

Wanganui Chronicle 06 Jun 1879

Wellington, June 5. An attempt is being made to get the watershed at the source of the Wainuiomata reserved from sale, with a view to a water supply for the future. The watershed of the present reservoir is being planted with trees by the Corporation.

Evening Post 19 Aug 1879 Water Supply Loan – To the Editor of the Evening Post

Sir – Among the many arguments in favor of the proposal to obtain a supply from the Wainui in preference to that from South Karori, the following do not appear to have been considered at the meeting:- As regards the South Karori, if the city is to be supplied with pure water, the watershed of both the present supply and the new supply must be purchased. When the Council endeavoured to purchase the watershed of the present supply, the price asked by one proprietor was £50,000, by a second £200 per acre; and if these sums are to be assumed as a measure of the value of the land required for carrying out this proposal, the cost would considerably exceed £100,000; assuming, however, that amount as the maximum, the approximate cost of the South Karori supply will be as follows:- Land £100,000; Cost of tunnel, &c £17,000; New mains for principal streets £30,000; Contingencies £5000 – Total £152,000. Instead of £60,000, as quoted by Councillor Fisher. For the Wainui supply, giving twelve times the quantity that can be obtained from the South Karori, and of superior quality, the cost of the land is but a small matter, amounting perhaps to not more than £3000 or £4000, and the further advantage is obtained that the districts of Wainui, Hutt, Petone, Ngahauranga, and Kaiwarra (all rapidly increasing in population) can be supplied without any increase in cost of works. It is admitted that water engines could not be used if the South Karori scheme is adopted, the supply not being sufficient to allow their use. The interest at six per cent on £130,000 (the sum required for the Wainui scheme) is £7800 per annum. Assuming that the out-districts above-mentioned will give a return of £3000 per annum (which is not, I think, an extravagant estimate), and that 100 water engines were used, paying an average of £50 each yearly, we have £5000 further revenue, a total of £8000 yearly, or more than sufficient to pay all the interest on the loan, and which would not be available if the more limited supply is obtained. The present is a most suitable time to place a large contract for cast iron pipes, the price of iron being lower than ever before known in the world's history. Some 10,000 tons of pipes being required, no delay should take place in getting out the contract, as a saving of £3 or £4 per ton is a matter of great consequence. A great mistake has, I think, been made by the City Council in not taking a vote for a loan of £200,000, to include both the water supply and drainage. It is most prejudicial to the interests of the city to be continually in the market for small loans. I am, &c., J. R. George, 11th August, 1879.

Evening Post 24 Jan 1880 Wellington City Council

Tenders for Waterworks Plant will close on the 26th inst., as advertised. Charles C. Graham, Town Clerk.

Evening Post 27 Jan 1880 A New Proposal for a Wellington Water Supply

Mr Nicholas Marchant, C.E., who was formerly Waterworks Engineer to the Wellington Corporation and designed and carried out the present waterworks, has made a written proposal to the Corporation on behalf of principals, whose names are not disclosed, for the construction of an extended water supply for the city. Mr Marchant's proposal, which bears yesterday's date, and of which he has courteously furnished us with a copy, is as follows:- The promoters will acquire and hand over to the city all freehold rights in connection with the full watershed of the Kaiwarra Stream, above the present storage reservoir; will construct filter-beds on the upward and self-cleaning system or the downward method, through gravel and sand layers, capable of filtering at least one million gallons daily; will provide and lay a fire-main connected with the present reservoir, traversing the city and terminating respectively at Cambridge Terrace and the junction of Molesworth-street and Tinakori Road, the main to run along any thoroughfare approved by the Council, to be connected at approved distances with existing mains and each fire brigade to be supplied with duplicate sets of appliances for increased pressure – hose alone excepted; will complete the works to the satisfaction of an engineer specially appointed by the Council, and maintain them in full working order for three months after completion, for a sum not exceeding £65,000, and will at once place a reasonable deposit in the bank as a guarantee of good faith. Such is the proposal. In its support Mr Marchant states that it would place the city in connection with storage works of one hundred and sixty millions of gallons, and ensure its distribution pure by the most approved filtration. Also, place through the main thoroughfares a fire main, bearing a working pressure of 250ft; or, about 200lbs pressure per square inch; the delivering capacity of the fire mains to be not less than one million gallons per diem. Mr Marchant adds:- "The extension proposed in this letter is by no means meant to supersede the Wainuiomata project, but to assist in perfecting it when the city requirements really demand the increased supply. In the meantime, the surplus amount of the loan left in the hands of the Council would more than enable it to acquire the freeholds necessary for the carrying out of the proposed Wainuiomata waterworks." He also remarks:- "After investigating the figures put forth relative to the acreage of the Wainuiomata watershed, together with the normal flow of the stream, grave doubts, almost amounting to positive conviction, exist, that the yield has been overestimated by upwards of eight millions of gallons per diem. It is generally considered that the loan of £130,000 is wholly inadequate for the completion of the Wainuiomata works as proposed, and that the ratepayers will shortly have another call made upon them of probably upwards of one hundred thousand pounds." For all these reasons, Mr Marchant submits that, in the present depressed financial condition of the city, the offer is worthy of the earnest consideration of the Council.

New Zealand Times 28 Jan 1880 The New Waterworks

Opening of Tenders by the City Council for the Wainuiomata water supply scheme... The tenders were then read by the Town Clerk as follows:-

[1] McKinnon and Tannahill, Glasgow – No.1, £8 9s per ton; Nos 2 to 10, £14 11s per ton; Nos 11 to 14, £1110, all wanted; No.15, £30 per ton; No.16, 4s per lb; No.17, £26 per ton.

[2] Laidlaw and Son, Glasgow – No.1 £7 14s per ton; Nos 2 to 10, £13 per ton; No.11, 8s each; No.13, 9s each; No.15, £740, all wanted; No.17 £22 per ton; bolts, 5s; testing machine £260

[3] D. Robinson and Co., Dundee (per Levin and Co.) – No.1 £8 15s per ton; Nos 2 to 10 £12 per ton; Nos 11 to 13, 15s 3d each; No.15 £20 per ton; No.16 3s 6d per lb; No.17 £30 per ton; hydraulic testing machine, £190.

[4] McLaren and Co. (per J. & A. Anderson, Christchurch) – No.1 £8 per ton; Nos 2 to 10 £12 per ton; Nos 11 to 16 £1300 the whole; No.17 £21 10s per ton.

[5] McEwen and Co., Melbourne (per Dawson and Co.) – No.1 £8 19s per ton; Nos 2 to 10 £12 per ton; No.15 £25 per ton; No.16 2s 6d per lb; Nos 11 to 14 and 17 and testing machine £1600 the whole.

The figures given above were for the different items contained in the specifications, as follows:- No.1 cast iron socket pipes; No.2 cast iron crosses; No.3 cast iron trees; No.4 cast iron fire plug trees; No.5 cast iron risers; No.6 cast iron reducing pieces; No.7 case iron sweeps; No.8 cast iron special castings; No.9 cast iron thimbles; No.10 cast iron dead ends; No.11 fire plugs complete with gutta percha balls; No.12 street boxes for fire plugs; No.13 valve boxes; No.14 sluice valves, price for each sized valve, including the connecting pipes, as specified; No.15 wrought iron bolts and nuts for connecting flanged pipes to valves, and fire plug tees, risers, and fire plugs; No.16 insertion washers cut to the different sizes required for all flanged objects; No.17 pig lead.

Robinson and Co. also sent a tender for £77,700 for the whole of the contract. The Mayor said that the Council would see it was wholly impossible for them then to find out the relation the amounts of the tenders stood in to each other. They would have to be referred to a small committee, to examine exhaustively, and report to another meeting of the Council...

New Zealand Times 30 Jan 1880 City Council

A special meeting of the City Council was held last evening, for the purpose of considering the report of the committee appointed at the last meeting... The committee beg to report that they have examined the various tenders, and find that the total amount for each tender is as follows:- R. Laidlaw and Son, £68,684 5s 9d; J. and A. Anderson for McLaren, Alley and Co. £70,463 8s 3d; W. Dawson and Co. for McEwen and Co. £74,673 7s 9d; McKinnon and Tannahill £74,879 11s; Levin and Co., for D. and W. Robertson £77,500. They therefore recommend that the lowest be accepted... It was stated that the committee had gone carefully over the whole of the figures. The report was put and adopted unanimously. Some conversation took place on the Councillors paying a visit to the Wainuiomata Springs, and one or two of the Councillors remarked that the suggestion was a very good one, one of the Councillors agreeing that this would be so if the ratepayers were willing to pay the expenses...

Evening Post 02 Feb 1880 A Trip to the Wainui Watershed

[By our Special Reporter] I have come to the conclusion that one may do many worse things than go on an official excursion with a Corporation or a local government body of any description. It must have been rather good fun on May Day in the good old times of King Henry VIII to go into the weald of Kent to gather the May with the Lord Mayor and Corporation of London, and afterwards to meet the King and Queen on Shooter's Hill – that is to say if his Majesty happened to be in a good humor, and did not feel inclined to have a few heads off. It is by no means a disagreeable experience in the present day to go with the Lord Mayor and Corporation of London on their quaint annual trip to Epping Forest. I have even derived much pleasure from assisting parochial officials at Home in "beating the bounds" of the parish, my enjoyment being immensely heightened by the exhilarating spectacle of the "bumping" of two churchwardens. This impressive and dignified ceremony consisted in their being taken by the arms and legs and swung, so that a vulnerable portion of their body comes into violent contact with a tree, or stone wall, this being a time-honored custom on these occasions. And I have a not at all unpleasant recollection of visiting, in company with a whole host of civic and other dignitaries, one of the last places one would select in which to spend a happy day – namely a sewage farm. I must confess that this was an undertaking that I approached with a somewhat diffident spirit. However, duty must be done, and the patent Syphonostomatic process (I won't tell tales and reveal its real name) had to be inspected at all hazards, since we were told that this was the plan which was to settle at once and for ever the great *crux* which was driving local bodies in all parts of the world to the verge of desperation. Arrived at the railway station we found that the thoughtful Sphonostomatic Company had provided us with a special train, and we discovered comfortable carriages awaiting us at the terminus to which we were booked. On arriving at the works we found an extremely urbane gentleman – the chairman of the company – ready to do the honors, in which he was assisted by another urbane gentleman of exceedingly scientific aspect – the consulting chemist I believe he was. We went into the laboratory of the latter, where we performed some extremely interesting experiments with sherry and biscuits, and then we made a tour of the works. Everything, of course, was in applie-pie order for our visit – which opportunity took place on a clear frosty day. We were enthusiastic on the success of the process and its perfect freedom from annoyance, and one gentleman in a daring spirit of scientific investigation actually went so far as to *taste some of the effluent water!* He said it had only a slight flavor of lime. I was perfectly willing to accept his word for it, and did not venture to contradict his statement. We had a pleasant drive round to see the principal objects of interest in the neighborhood, and this was followed by a charming champagne luncheon. We then became even more enthusiastic about the success of the process, and predicted the most wonderful results to follow from it. However, I am sorry to say, in spite of all this, that the disposal of sewage is still an unsolved problem, and the Suphonostomatic Company has long since been wound up.

I went with the Wellington City Council on Saturday to inspect the source of the proposed new water supply, and have come to the conclusion that they also are not half bad fellows to go out with. Some of them are truly awful to contemplate in the Council Chamber – such dragons of virtue are they, and so terrible in their denunciations of each other's iniquity. Still it is astonishing how harmless and jolly you find them when they relax from the cares of state. There were seven of the City Fathers in the party – Messrs Maginnity, Miller, Greenfield, Danks, Young, Fisher and Allen. We were accompanied also by the genial City Engineer, Mr Baird, and his able assistant, Mr Barton. The drive through the Hutt, as far as Wainui-o-mata hill, was devoid of incident, but here was a serious difficulty confronted us. The 'difficulty' consisted of Messrs Sinclair's new locomotive engine, "Pio Pio", which had been dragged out here with great labor, but was now blocking up the road apparently without any hope of getting it further. We subsequently saw a dozen powerful bullocks have a spell at it, but they gave up in disgust. Consequently, it seems very probable that either the engine will have to be taken over the hill piece-meal, or else nothing less than a convulsion of nature will be able to move it. At first it appeared doubtful whether the trip would not have to be abandoned. However, our driver was an Irishman, and, therefore, a man of infinite resource. He soon confided to us that he could take the traps round another way through some paddocks, but

mentioned that the principal preliminary step necessary to the complete success of the plan was that we should all walk right up to the top of the hill. The road was about three miles long, and rose goodness knows how many feet above the level of the sea, but we complied with his request, although we could not exactly see why it was necessary, inasmuch as the traps were bound to come into this road by a track only a few yards above the engine. We found out the secret afterwards, however – it was merely a diplomatic “move”, on the part of that astute Jehu to save his horses! Still, a merciful man is merciful to his beast, and I, for one, quite forgave that designing driver, as we trended our way upwards through a profusion of shrubs, and saw the beautiful panorama unfolded at our feet. There was the beautiful bay, with the entire sweep to the right as far as the eye could reach edged with a creamy line of foam, caused by the surf breaking on the beach. Still further to the right lay the valley of the Hutt, with the Hutt and Waiwetū Rivers crossing the plain like silver threads, while the hills around formed a pleasing background to the picture. Besides, riding along this road, as we discovered afterwards, is not without its drawbacks. It is too dangerous to be pleasant, and a broken spring testified to the peril of trusting oneself in a light buggy along such a track with a load of portly City Councillors. We had picked up Mr Duncan Sinclair *en route*, and he very kindly consented to accompany us to the stream to “show us around.” And a very great acquisition we found him – his courtesy and knowledge of the country rendering our visit twice as agreeable as it otherwise would have been. We soon bowl along across the somewhat dreary looking plain of the Wainui, past a primitive little burying-ground, where sleep two of the pioneers of the Valley – Mr and Mrs Sinclair, sen. – and then we reach the sawmills. The inhabitants of the Wainui-o-mata acquire additional interest in our eyes when we are told that they are all Wesleyans and have no public houses in the Valley. One of the party suggests that as we have a slight stock of liquid refreshment “on board” we might do a good stroke of trade with these primitive people. This ribald proposal is, however, I am glad to say, scouted with the contempt it deserves – especially by the more thirsty of the travelers. Arrived at the sawmills we have a picnic, the large logs serving capitally as tables and seats. Now were our City Fathers in the height of good humor, and many a roar of laughter awoke the silence of the Valley. Now did one *Pater conscriptus* in particular shine at his brightest. The peculiarity about him was that directly anyone wanted a corkscrew it was produced with lightning-like rapidity, equalled only in point of fact by the celebrity with which he could evolve a joke on any conceivable subject. It must be confessed that the scenery just at this spot was the reverse of exhilarating. All the beautiful bush on the hills has been destroyed by fire, and the charred logs lay strewn in thousands on the slopes, giving one the idea of the corpses on a battlefield. However, there is lovely virgin bush further up the gully where it is proposed to erect the dam to intercept the stream, which comes babbling down past the mills as clear as crystal. A guarantee of its purity is afforded by the fact that Mr Sinclair has succeeded in rearing some English trout in it. Occasionally some of the speckled beauties, nearly a foot long, are seen flashing about in the water, and before very long there should be fine sport for the angler. We were told by Mr Sinclair that it was only a mile and a half up the gully to the site of the dam. Some of the City Fathers, however, were ready to take their solemn affidavit afterwards that it was not an inch short of 14 miles. As a truthful chronicler it is also my duty to add that Mr Sinclair – who of course is an experienced bushman – was a perfect *ignis fatuus* in the way in which he lured his civic guests to their destruction. He and the City Engineer – who is also experienced in the mysteries of the bush – would hop lightly over fallen logs and trip airily across treacherous bogs without ever making a false step, or wetting the soles of their boots. The City Fathers, however, barked their shins, and selected the softest parts of the morasses with a unanimity that was really wonderful. Our destination, notwithstanding, was reached at last, and the party gazed at the stream much as Stanley must have looked at the source of the Congo. Maps were produced by Mr Baird and Mr Barton, and what was proposed to be done was clearly explained. A dam and a tail-race were to be constructed here, and the water would enter the pipes, as at present arranged, near Captain Mowlem’s, farther down the valley. After being carried by a tunnel a quarter of a mile long through the Sulky Hill, the main would go across the plain again, piercing the hill by a tunnel 27 chains long, and coming out by the side of the spur over which we had passed; thence it would be laid along the front of the race-stand, through Petoni, Ngahauranga, &c., to Wellington. The proposed receiving basin will be 350ft above sea level, so that, as may be imagined, there will be a splendid pressure available. The water is very clear, passing through 9000 acres of virgin forest, reserved to the Council by the Government, and over a bed composed of nothing but shingle and stone. It was at its lowest level when we saw it, being the height of summer, but even then it was a bawling stream many times larger than that which at present supplies the

city. The visitors were fully satisfied, in fact, that it would more than fill the two-foot main which it is proposed to construct. In the winter the stream becomes a mountain torrent, but even then, Mr Sinclair informed us, the water preserved its purity. If, as Tennyson assures us is the nature of brooks, it should "go on for ever," there ought to be no fear of Wellington being deficient in the matter of water supply. If, however, it should from any cause become insufficient, a tunnel of ten chains would turn the Orongorongo, a neighboring stream, into it, and so double its volume. We followed up one of its tributaries, "George Wood Stream," and there, in the midst of some picturesque bush, Mr Sinclair showed us some quartz which had yielded gold at the rate of 2½ to 14 dwts to the ton, although no one has yet been able to discover the reef. The shades of evening were falling when the party returned into town, with the gratifying reflection that they had gained a good deal of useful information from the visit. There is no doubt that the members of the Council will now be able to discuss the matter in a much more intelligent manner than if they had never visited the spot.

Evening Post 24 Mar 1880 Death of Mr Clark, C.E.

We regret to learn from the Sydney Morning Herald of the death of Mr William Clark, C.E., the well known hydraulic engineer, the news of which reached Adelaide by telegraph from home. It may be remembered that Mr Clark was in Australia for the purpose of advising as to the drainage of Adelaide and other towns, when the Corporation of Christchurch took advantage of his presence in the southern hemisphere to consult him as to the drainage of that city. The Corporation of Wellington being also in considerable difficulty as to its drainage, thereupon obtained the services of Mr Clark to report upon the scheme then before the Council. In the result Mr Clark submitted a new and greatly improved scheme, and then followed the wearisome squabbles with which the ratepayers have since been nauseated. Referring to the announcement of Mr Clark's death, the Sydney Morning Herald says:- "Although regrettable, the announcement is not altogether unexpected. Private letters some time ago informed his friends that he had been ill for some months with an attack of jaundice, which came on when staying at the seaside. He had the best medical advice, but it was of no avail, and he grew weaker under the inability to obtain nourishment from his food. It is probable that his long residence in India undermined the vigor of the organ whose weakness proved fatal to him, and his work in Australia was certainly in no degree responsible for his last illness. He enjoyed the climate of these colonies, and was not unfavourable to the idea of making his permanent residence here. He had a high opinion of the future of Australia and not only invested his own earnings in our securities, but recommended them to his friends as one of the safest investments to be found. He did not live long enough to see the execution in Australia of any of the works he recommended, but we lose in him a valuable consulting engineer, whose advice would have been useful in consequence of the local knowledge he had acquired."

Evening Post 27 Jul 1880

The following tenders have been received by the City Council:- Cartage of pipes for Wainui waterworks – Accepted: Charles McKirdy, 9s 7d per ton. Declined: W. F. Oakes, 13s 6d; John McLean, 18s 9d; E. Daly, £2 7s 6d; E. O'Malley, 6s to 30s; P. Scally, 6s to 25s; J. and D. Sinclair, 9s 6d to 19s 6d; J. Kelliher, 8s to 21s 6d; George Pudney, £1.

Evening Post 30 Jul 1880 Wellington City Council

Wainui-o-mata Waterworks Extension. To Contractors. Tenders for the Formation of about 70 Chains of Tram Line up the Wainui-o-mata Valley will be received at the office of the undersigned up to 4 p.m. on Thursday, the 5th August. Plans and specifications to be seen at the office of the City Surveyor. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk.

Evening Post 03 Sep 1880 City Council

The City Surveyor having reported that the specifications, &c., for the tunnel in connection with the Wainuiomata water supply were completed, it was resolved to issue the necessary advertisements.

Evening Post 07 Sep 1880 Wainui-o-mata Waterworks Extension – Tunnel Contract – To Contractors

Tenders will be received at the office of the undersigned, up to 4 p.m. of Thursday, the 16th inst., for driving two Tunnels the respective lengths of 35 chains and 6½ chains, and various works in connection therewith. Plans and specifications may be seen at the office of the City Surveyor. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk. 7th September 1880.

Evening Post 17 Sep 1880 City Council

There were five tenders for the construction of the smaller tunnel at Wainui-o-mata, and that of J. Colman was accepted. The tender of W. F. Oakes was accepted for the construction of the longer tunnel, for which there were eight tenders.

Evening Post 23 Sep 1880 Wellington City Council – Wainuiomata Waterworks Extension

To Contractors. Tenders will be received at the office of the undersigned, up to 4 p.m. on Thursday, the 30th instant, for the following works:- 1. Clearing site for Reservoir, about 15 acres. 2. Formation of 50 chains of tram line, and 18 chains of race track. Plans to be seen at the office of the City Surveyor. The lowest or any tender not necessarily accepted. Charles C. Graham, Town clerk. 23rd September 1880.

Evening Post 25 Sep 1880

The following tenders were received by the City Council for the Black Creek tunnel in connection with the Wainuiomata water-works:- Accepted – John Coleman, £283 10s 6d. Declined – W. F. Oakes, £397 13s; Thomas Powell and Co, £600 13s 3d; J. Kelleher, £624 16s 6d; and Clark Dunn, £1084 14s. The contract for the long tunnel has not yet been signed by the lowest tenderer, and until this is done the names of the tenderers and amount of each tender will not be made known.

Evening Post 28 Sep 1880

The tender of W. F. Oakes, for the long tunnel in connection with the Wainui-o-mata water works, has been accepted, the price being £1982 13s 8d. The following other tenders were received for the work, but declined:- J. Kelleher, £3103 9s 11d; W. Burton and Co., £3421 2s 7d; P. Scalley, £3566 10s 11d; Cleary and Co., £3876 19s 5d; W. Whiteford, £4625 17s 4d; Robert Scott, £4681 18s; Clark and Dunn, £4979 12s. The engineer's estimate for the work was £3774.

Evening Post 01 Oct 1880 City Council

A meeting of the City Council was held last night. Present – His Worship the Mayor, Councillors Diver, Danks, Stafford, Allen, Logan, Maginnity, Fisher, Miller and Greenfield. Councillor Danks having complained of the engineer's estimate having appeared in connection with the amounts of the tenders for the Wainuiomata tunnel, the Town Clerk explained that through an inadvertence it had been obtained by the reporter of the morning paper, but it would not occur again... Some discussion arose on the probability of the Harbor Board charging the Council dues in connection with the landing of the waterworks plant at Wainui-o-mata. It was pointed out that it would be most unfair if this were done, inasmuch as the Corporation had allowed about a million pounds' worth of Government property to be landed at the Queen's Wharf without charge. It was suggested that the Minister for Public Works should be interviewed on the subject, but the Mayor pointed out that that would be of no use, and that the only course was to send a deputation to the Harbor Board. No definite action was, however, taken in the matter.

Evening Post 07 Oct 1880 Wellington City Council – Wainui-o-mata Waterworks Extension

To Contractors. Tenders for laying water mains from Petone to the Hutt River (about 2 miles), will be received at the office of the undersigned up to 4 p.m. of Thursday, the 14th inst. Specifications, &c., at City Surveyor's Office. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk. Wellington, 7th October, 1880.

The following tenders have been received by the City Council:- For the formation of the tram-line and race-track for the Wainui-o-mata waterworks – Accepted: John Kelleher, £443 3s 2d. Declined: P. Scalley, £554; W. Burton, £557 1s 3d; W. F. Oakes £591 10s; John Coleman £692 10s; Pat Walsh £724; James Cleary £780; Robert Scott £783 3s 4d. For clearing the site for the reservoir the tenders were – Accepted: Tom Wood £70. Declined: C. Mahoney £72 5s; E. O. Amooore £85; R. Kilmister, £93 1s 6d; J. D. Sinclair £99 9s; J. O'Connell £110; Crawley and Moffat £116; D. Archibald £216; Thomas Pavell £255; W. Burton £295; Robert Scott £440.

Evening Post 04 Dec 1880 The Water Supply

Dr Hector has made a report to the Corporation as to the condition of the water now supplied to the Wellington citizens. That report is as follows:- "The amount of oxygen now required by this water to oxidise its more easily oxidisable matter is .049 grains per gallon. As the quality of the water has lately been questioned, the return for ten previous months is here given for comparison; from this it will appear that the water is as pure as it was last midwinter, although the advancing summer season is beginning to affect it slightly, and should warn consumers to see to their house filters being in good working order: 1879 – 9th April, .225 grains of oxygen required per gallon; 29th April, 0.178. 1880 – 5th May, .076; 1st June, .074; 8th July, .052; 1st August, .06; 4th September, .048; 3rd October, .047; 4th November, .036; 3rd December, .049 – James Hector. M.D." In explain terms, Dr Hector's report amounts simply to this – that *of one particular class of impurity*, the oxidisable matter, there is less than there was last autumn, although more than in the spring months just expired. This is all very well, so far as it goes, but it does not go nearly far enough to be satisfactory to the water-consumers of this city. It is hardly necessary to point out that the chemical impurities in water do not by any means comprise the whole or even, perhaps, the most dangerous of the pollutions by which it is liable to be defiled. The latest and best authorities on the subject are clearly agreed that the gravest peril may attach to the use of water which passes very favorably the ordinary chemical tests, and it appears to be generally accepted now as a medical axiom that water once defiled, especially with a class of impurities to which we shall refer later, cannot again be rendered absolutely innocuous for domestic consumption. Water, although essential to bodily health and personal cleanliness, is unfortunately also the most eligible vehicle for the dissemination of certain repulsive forms of "dirt and disease." It seems to be established by the strongest possible chain of inductive reasoning that the "germs" from which are believed to spring many of the "ills which flesh is heir to," are conveyed into the human body with especial facility by drinking water, and these germs have hitherto completely baffled detection by chemical analysis, although their pernicious action on the corporal frame, when once admitted, is as manifest as the fact that they have been thus conveyed is clear and indisputable. The microscope has thrown a vast amount of light on this important subject, and the gravity of its bearing on the public health is not even yet thoroughly appreciated... Now we have it on clear and irrefutable evidence that the carcasses of sheep and dogs are lying by the score scattered about the watershed of the Kaiwarra stream, by which our main reservoir is fed... The owner of the watershed admits, with a sort of grim candour... the existence of these various sources of defilement, but he not altogether disinterestedly suggests that the whole evil could have been prevented and could still be remedied by the Corporation purchasing the watershed from him. Possibly, but sometimes a remedy is more greivous than the disease it seeks to cure; and, seeing that Mr Finnimore asked the modest price of £50,000 for the property, it is not very surprising that he and the Corporation should have been unable to come to terms, and now that the new supply from the Wainuiomata will soon be available, it would be out of the question for the Corporation to purchase the old watershed at a fancy price. The only course now open to the Waterworks officials seems to be to exercise the strictest vigilance, so as to discover and remove as promptly as possible impurities... Meanwhile, the Wainuiomata waterworks are proceeding rapidly towards completion, and, pending the supply of that purer water, the use of filters ought to be universal, and never omitted under any circumstances whatever.

Evening Post 24 Aug 1881 Advert

On the last day of the year 1880, the ship 'Berwickshire' left Greenock for Wellington, but after being a month at sea had to return to port owing to the damage caused to ship and cargo by the shifting of the large pipes for the Wainui-o-mata water supply. Among the cargo were several packages containing Scotch Winceys shipped to the order of James Smith, Te Aro House, and as a considerable portion of these were damaged, it is intended to offer them on Saturday at such prices as will render an early visit that day to Te Aro House exceedingly advantageous to all purchasers.

Evening Post 04 Mar 1881 Wellington City Council – Wainui-o-mata Water Works Extension – To Contractors

Tenders for the following works will be received at the office of the undersigned up to 4 p.m. of Thursday, the 10th instant:- 1st – Laying 24-inch water mains from road leading from Hutt Race-course to foot of hill at Waiwetu (about 70 chains), and building a small bridge over the Waiwetu stream. 2nd – Laying 30-inch water mains between Black Creek and the Long Tunnel (about 140 chains) in the Wainui-o-mata Valley. Plans, &c., may be seen at the office of the City Surveyor. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk. 3rd March 1881.

Evening Post 11 Mar 1881 City Council

The fortnightly meeting of the Wellington City Council was held last night. Present – His Worship the Mayor, Councillors Miller, Greenfield, Thompson, Fisher, Danks, Allen, Stafford and Logan... A letter was received from Mr Nees, suggesting a plan of laying the water-pipes across the Hutt River. The City Surveyor also produced alternative plans of the bridge. It was resolved that the whole question should be considered at a special meeting of the Council... Nine tenders were received for the laying of 24-inch water pipes from the Hutt River to the foot of the tunnel. That of Messrs Scoullar and Archibald was accepted. For the construction of a tunnel at the Black Bridge, the tender of Messrs Farrell and Maher was accepted.

Evening Post 20 Apr 1881 Important Sale of Valuable Draught Horses – Saturday 23rd April

Mr R. J. Duncan has received instructions to sell by public auction, on Saturday next, at Mr Cudby's Family Hotel, Lower Hutt – 20 staunch heavy Draught Horses. The above are well-known, and have been in use by Mr Charles McKirdy, contractor, who has recently carted over 4000 tons of the Wainuiomata waterpipes, a great portion of them over the hill. It is impossible to procure better, or any, horses equal to these for ploughing or for any other purposes requiring heavy draught. Refreshments will be provided by Mr Cudby between the hours of 12 and 2 o'clock on Saturday, 24th April [sic]. The above is a genuine sale, and after the sale of the draught horses a few hacks and saddle horses will be sold.

Evening Post 04 May 1881

A short time ago a portion of the large tunnel in connection with the Wainui-o-mata waterworks caved in, and it was found desirable to line it for some distance. The City Engineer has now been instructed to make arrangements for having it lined at his discretion, in terms of the contract schedule, and, in addition, to arrange for an iron tramway through the tunnel for the conveyance of pipes and other material.

Evening Post 03 Jun 1881 City Council

An ordinary meeting of the Wellington City Council was held last night. Present – His Worship the Mayor (in the chair), Councillors Danks, Allen, Maginnity, Fisher, Brown, Thompson, Logan, Greenfield, Diver and Young. The report of the Public Works Committee (which has already been published) was read, and the clauses considered *seriatim*. In regard to the clause recommending the lining of the Wainui-o-mata tunnel, the City Surveyor said that the extra cost thus involved would be upwards of £5000.

Evening Post 23 Jun 1881 Wellington City Council – Wainui-o-mata Waterworks Extension – To Contractors

Tenders will be received at the office of the undersigned up to 4 p.m. of Thursday, 30th instant – For the Formation of a Track, and Laying 24-in water mains thereon, from the foot of the Waiwetu Hill to mouth of tunnel, 17½ chains. Plans, &c., at City Surveyor's office. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk. 23rd June 1881.

Evening Post 01 Jul 1881 Advertisement

Wanted, at once, 50 first-class Pick and Shovel Hands. Apply at the Wainui-o-mata Tunnel, or W. F. Oakes, Lower Hutt.

Evening Post 07 Sep 1881 Mr T. Carter at the Rechabite Hall

Mr T. Carter, one of the candidates for the representation of Te Aro Ward in the City Council, addressed a meeting of his supporters at the Rechabite Hall, Manners-street, last night. There were about 100 persons present. Mr McLean presided... [Mr Carter] strongly attacked the City Engineer's administration. He referred to a report that the contractor who took the contract for the Wainui-o-mata tunnel at 12s 6d per foot sub-let it at 22s 6d, and that a sum of £5000 had been needlessly spent in bricking in the tunnel...

Evening Post 29 Dec 1881 Fire at Lower Hutt

From Constable Mackay, the officer in charge of the Lower Hutt station, Mr Superintendent Shearman received a telegram early this morning, stating that some outhouses and a haystack, belonging to Mr Daniel West, at Waiwetu, had been destroyed by fire last night. On the premises were found a pair of trousers and a vest, which have been traced to a man named Hargraves. This person has been taken into custody on suspicion of being concerned in the affair, and Detective Chrystal has proceeded to the spot to prosecute further enquiries as to the circumstances attending the fire. The buildings were insured in the Liverpool, London, and Globe office for £500. The insurance is divided as follows:- £300 on the dwelling-house, £50 on the furniture, and £150 on the out-buildings. Mr West estimates his loss considerably above the insurance; the value of the haystack destroyed alone amounted to about £150. The dwelling-house was saved with great difficulty, the water having to be pumped from a small well in the yard. Hargraves was brought to town this afternoon, and will be charged at the R.M. Court to-morrow with setting fire to the property. He has latterly been employed as a navy in connection with the Wainuiomata waterworks tunnel.

Evening Post 04 Mar 1882 The Wainui-o-mata Water Works – Visit of Inspection

In accordance with arrangements entered into at the meeting of the City Council held on Thursday evening, a number of our "City Fathers," accompanied by the City Surveyor, assembled at the Wellington railway terminus shortly after 10 o'clock yesterday morning, with a view of proceeding to the Wainui-o-mata Waterworks, now in course of progress. The object of the visit was two-fold. In the first place it was desired to ascertain the present condition of the works and the progress effected since the previous visit, which took place some time ago; and secondly – or perhaps this object was the principal one – the Councillors were anxious to examine the nature and estimate the value of a piece of land required for the reservoir. Those who met at the Railway Station comprised the Mayor, Councillors McKenzie, Maginnity, and Greenfield, Mr J. D. Baird (the City Surveyor), and the representative of the EVENING POST. At the Lower Hutt station the party found a couple of buggies waiting to convey them to the Wainui-o-mata Valley, a distance of about seven miles, and at this juncture the party received an accession in Mr W. F. Oakes, the contractor now engaged in carrying out a portion of the scheme, and Mr R. Cleland, one of his bondsmen. The ride to the valley was an unpleasant one. At short intervals a drizzling rain descended on the uncovered vehicles thus tending to mar what would otherwise have proved a most enjoyable trip. A halt was effected at Messrs Sinclairs' sawmills in Moore's Valley, reached a few minutes after mid-day; and here, after partaking of refreshments, the party were transferred into a truck, which, drawn by a single horse, conveyed them along a tramway nearly two miles in length to the site of the proposed reservoir. It was here that the task of inspection commenced. The land required for the reservoir is about 30 acres in extent, and appears admirably adapted for the purpose in question, forming a natural basin. Messrs J. and D. Sinclair, we understand, are the owners of this, and the price demanded for the land is at the rate of £12 per acre. Whether the Council will be recommended to pay this price or not remains to be seen. Preparations were observable in this locality for constructing a dam across the river; and here also is erected a machine for mixing the concrete required for the races and so forth. This machine, which was put together under the personal supervision of the City Engineer, consists of an iron cylinder, whose capacity measures 100 cubic feet, and is worked by the engine formerly belonging to the well-known steam-launch "Perfect Cure." It has now been at work for some days and gives the utmost satisfaction. The excavations for the concrete race, which is to be 96 chains in length, 4ft in width and 2ft 9in from the crown of the arch to the bottom of the invert, are already completed, and this portion of the work is proceeding with satisfactory perseverance, a large number of men being employed. After going over the whole of the works at this end, the party proceeded to the tunnel in course of formation through the Wainui-o-mata hill, for which Mr Oakes is also the contractor. The men are employed at both ends of the tunnel, which is to be 37 chains long, there remaining only 15 chains still to complete. The buggies served to take the party from this place to the wooden bridge being built across the Hutt river in the vicinity of Gear's Island, for the purpose of carrying the waterpipes. Here also numerous hands were busily employed, superintended by Mr Bayliss, the contractor, who appears to be getting along with the job very nicely. By this time there only remained a few minutes in which to catch the 5.40 p.m. train into town, and the party accordingly next proceeded in the direction of the railway station. On the whole, it may be said the work is being carried out with satisfactory speed and, so far as could be inferred from such a visit as this, in a thoroughly efficient manner. Twelve or fifteen months, however, must elapse before the scheme can be regarded as *un fait accompli*.

Evening Post 23 Jun 1882 City Council

The report of the Wainui-o-mata Waterworks Committee was read, and its adoption moved by Councillor Allen. It was to the effect that the committee had again had under consideration the amount of compensation to be given to Messrs J. and E. Sinclair for the land taken for the reservoir, and recommended that the sum of £8 per acre be paid in full of all claims. They were of opinion that until the works were completed, and the Corporation knew what balance they would have left it would be premature to consider the question of purchasing the watershed. They recommended that the sum of £10 be paid to Mr E. Campbell in full of all claims for damage. The report was adopted.

Evening Post 01 Sep 1882 The City Council and the Reform Association – A Lively Discussion

At the meeting of the City Council last night, a deputation from the Reform Association, consisting of Messrs Quin, J. Petford, S. Dawson, J. Petherick, W. Andrews, J. White, C. Hendrey, and Captain Stafford, waited on the Corporation, in order to express their views on municipal engineering and other topics...Mr Petherick referred to Mr Baird's career from his appointment, and said that he never knew that gentleman had had any previous training as a civil engineer, although he knew he had been a surveyor under the Provincial Government. Mr Petherick contended that the drainage right through the town was an utter failure. He then went on to criticize at some length the engineering in connection with the Wainui-o-mata waterworks, especially contending that the long tunnel now being constructed was unnecessary. If a long train could go round a hill, it ought to be possible to carry waterpipes round also. Mr Quin, interrupting, urged Mr Petherick to keep to the drainage, remarking that they had not come there to talk about the waterworks. (Laughter.)...

Evening Post 05 Sep 1882

A lively account of a side scene which occurred during the recent visit of the deputation from the Ratepayers' Reform Association to the City Council was given by Mr Petherick at a meeting of the Association last evening. Summoning him to a side room apart from the rest of the deputation, by one of the Corporation messengers, Councillor Allen said – "I want to tell you, 'If anyone accuses that young man that is appointed as inspector for the Wainui-o-mata tunnel, saying that he is an inexperienced person, they tell a lie.'" This having evoked a somewhat incredulous laugh from the members of the Association present, Mr Petherick assured them that he was giving them the words just as they were uttered. He (Mr Petherick) was so surprised that he thought it was his duty to tell them. "I told Councillor Allen," continued Mr Petherick, "it was reported that the person appointed was inexperienced." "He has fourteen years' experience," retorted Councillor Allen. "But he didn't name where," said Mr Petherick to the members of the association, all breathless to hear the upshot of the scene. "I tell you, continued Councillor Allen. "that he is as steady and respectable a young man as is to be found in New Zealand, and he is my son, and anybody who says he is not fit to be placed over those works is a liar." Councillor Allen brought the interview to an abrupt conclusion by reproaching Petherick for having anything to do with the association. "And it was for this," said the orator pathetically, as he resumed his seat, "that I was called into the clerk's office away from the deputation, to be thus insulted in the presence of three clerks, and with the gas only half turned on!"

Evening Post 08 Sep 1882 Wellington City Council – To Contractors

Tenders will be received up to 4 p.m. on Thursday, the 14th instant, for Driving and Lining a short Tunnel at Wainui-o-mata, near site of proposed Dam. The lowest or any tender not necessarily accepted. Plans and specifications to be seen at the office of the City Surveyor. Charles C. Graham, Town Clerk. Wellington, 7th September, 1882.

Evening Post 16 Sep 1882 City Council

An ordinary meeting of the Wellington City Council was held last night. Present – The Mayor (in the chair) and all the Councillors... The tender of Messrs Luke, Sons and Williams, for the purchase of old iron was accepted, and that of Mr D. Sinclair for making the tunnel at Wainui-o-mata....

Evening Post 18 Jan 1883 In the Exchange Land and Mercantile Auction Rooms, Panama-street

On Tuesday, 6th February, 1883, at 2 o'clock p.m. In the Estate of J. and D. Sinclair. Sale of the whole of the valuable landed estate by order of the Registrar of the Supreme Court of New Zealand, at Wellington, at the request of the Mortgagees, and under the provisions of the Conveyancing Ordinance Amendment Act 1860, and the Sales my Mortgagees Act 1870. T. Kennedy Macdonald & Co. are favoured with instructions to sell by public auction, as above – The whole of the valuable farm, timber lands, and sheep-run at Wainui-o-mata, lately occupied by Messrs J. and D. Sinclair as under:- All that Magnificent Block of land situated in the Wainui-o-mata District, containing 4115 acres, more or less, comprising the following properties – **First** 1399 acres, being sections 27, 28 and 29, and parts of sections 26, 67, 68, 69 and 93 on the plan of the Wainui-o-mata District. **Secondly** 263 acres, being section 85 on the plan of the said Wainui-o-mata District. **Thirdly** 120 acres of unsurveyed land in the Wainui-o-mata District, being all the land comprised in Land Receipt entered on the Provisional Register, Vol. 1, Folio 660. **Fourthly** 475 acres, being sections 35, 36, 37 and 38 on the plan of the Wainui-o-mata District. **Fifthly** 1218 acres, being sections 72 and 73, and parts of sections 67, 68 and 69 on the plan of the Wainui-o-mata District. **Sixthly** 640 acres of unsurveyed pastoral land in the Wainui-o-mata District being all the land comprised in land receipt entered on the Provincial Register Vol. _ Folio 427. And also all that block of... in the Lowry Bay District comprising the following property:- **Seventhly** 84 acres, being section No.19 on the plan of the Lowry Bay District. The properties, fourthly, fifthly, sixthly, and seventhly are subject to a first mortgage for £1500 at 10 per cent., due on the 30th September 1883. The above property is one of the most valuable contiguous to the City of Wellington. A portion of it is cleared and laid down in English grass, sufficient to carry about 3000 sheep, while the upper portion includes a large quantity of valuable timber suitable for saw-milling purposes. The streams which supply the new Wainui-o-mata water supply of the city run through the land. In fact, the whole of the land and streams from the dam to the Government lands granted for a watershed are included in the property. This land, being part of the watershed, is generally supposed to be the property of the City Corporation, but, strange to say, has never yet been acquired by that body. For full particulars, conditions of title, &c., apply to Messrs Izard & Bell, Solicitors, Willis-street; or to the Auctioneers.

Evening Post 29 Jan 1883 The Wainui-o-mata Watershed

The following memorandum by Mr H. Jackson, late Chief Surveyor of the Wellington Province, has been handed to us for publication, and will doubtless be read with interest:- The headwaters of the Wainuiomata, from which the new water supply for the city of Wellington is to be drawn, take their rise in a basin of the Rimutaka Hills, formed by the main range at its extremity, and by the ridge of spurs from the main range on its flanks, which latter gradually converge and eventually, nearly meeting, bound the narrow valley of the Wainuiomata. At or about the embouchure of this basin a site has been selected for the reservoir of the water supply. The whole area of the watershed is waste lands belonging to the Crown, with the exception of some 3,000 acres which have been purchased by the Messrs Sinclair, of Wainuiomata, and which is so located as to front and flank immediately upon the site of the reservoir. This vast basin is at present in a state of nature; it is heavily clothed with timber and interspersed with numerous gullies affording limpid waters from their streams and rivulets. It is thus evident that the whole of the streams upon which is depending the water supply for the city of Wellington must pass through the said property of the Messrs Sinclair before their waters can reach the reservoir. The question hence arises whether the effects of felling and clearing the standing bush on the 3000 acres owned by the Messrs Sinclair – a work which is in immediate contemplation – will be of so serious a nature as to vitiate materially, either by direct or indirect causes, the quality and quantity of the waters for the supply of the city of Wellington. It is necessary here to premise that the quality and quantity of

the waters supplied by mountain streams depend exclusively on the amount of bush, ferns, mosses, and other natural growths on the lands through which they pass. For, denuded of these catch-waters afforded by nature, the ground would be rendered powerless to absorb and retain the periodical rains, and so at certain seasons of the year the volume of water in the streams would be liable at least to diminution, and possibly even to exhaustion, whilst the action of the sun and air upon streams exposed to their direct influence, would essentially injure the pristine quality of the water. The above premising remarks directly imply the results that may be expected, more or less, as the consequence of clearing so extensive an area as 3000 acres through which the streams flow immediately into the reservoir. The volume of water in this case, it must be admitted, would not become materially diminished, as the area of the contemplated clearings is small in comparison with that of the entire watershed; but the quality would be liable to serious deterioration not only from the constant putrefication of the masses of vegetable and animal matters which inevitably attends the occupation and cultivation of land. All these impurities must of necessity drain to the only outlet – the reservoir. An no further proof of the correctness of these remarks need be sought for than a consideration of the deteriorated condition of the present water supply of Wellington from the Karori stream, which results from the causes just stated, and which a filtering process fails to restore to wholesomeness. If, however, the danger to be apprehended of a diminished water supply arising from the clearing of the bush on this patch of 3000 acres be not serious, there is yet the extremely probable contingency of such a course leading to the wholesale destruction of the bush by fire throughout the area of the watershed, for during the process of clearing it would be impossible to confine the bush fires within the boundaries of the purchased lands; indeed it is well known that fires lighted in bushed gullies invariably run to the crests of the hills. An instance is afforded in the manner in which the bush became accidentally destroyed on the Rimutaka some few years back, the fire then running from foot to summit throughout the whole length of the road from Featherston to the Saddle. And as the destruction of the bush – which may be regarded as a mere question of time, if lands within the watershed become occupied – involves more or less the loss of water supply, apprehensions may reasonably be entertained that during seasons of drought the supply would be deficient of the demand for Wellington, even to the degree of exhaustion. It becomes, therefore, a matter of importance and careful consideration whether the risk of the destruction of the bush throughout the expanse of the watershed, and consequently the loss to the ground of the properties of absorbing a sufficient quantity of moisture to feed the streams filling the reservoir can safely be incurred, or whether by timely intervention apprehensions of such a danger should be averted. In its present state no other locality can be selected in the vicinity of Wellington affording a greater or purer supply of water than that of the Wainui-o-mata. Nature appears to have endowed it with the requisites for perpetuating to all time this supply; but, to secure this, Nature also demands that her works shall not be interfered with. An enormous expenditure of money will have been incurred on the completion of the new waterworks, which are undertaken on a well-grounded assumption that the supply of water is to be never-ceasing. I am therefore convinced that the danger of destruction to the bush of the watershed should not be incurred, and that steps ought to be taken in the public interest to avert it, by the Corporation of Wellington endeavouring to acquire from the Messrs Sinclair the fee-simple of their 3000 acres. Henry Jackson. The Hutt, 21st February 1882.

Evening Post 07 Feb 1883

Messrs T. Kennedy Macdonald and Co. offered for sale by auction this afternoon, at the Exchange Land and Mercantile Auction Rooms, Panama-street, a number of valuable properties. There was a large attendance. The sale of a farm, timber lands, and sheep-run, at Wainui-o-mata, in the estate of Messrs J. and D. Sinclair, provoked somewhat spirited bidding, which was started at £2000 and run up in £500 bids to £5000, the property falling to Mr A. E. Russell, of Palmerston North. The sale of the other properties was proceeding when our reporter left.

Messrs T. K. Macdonald & Co.'s Land Sale

Following are the details of the sale of property at the Exchange Land and Mercantile Auction Rooms yesterday afternoon. In respect to the Wainui-o-mata estate, the property, as previously stated, was knocked down at £5000, but is subject to a first mortgage of £1500, bringing the price up to £6500.

Lot 4: Wainui-o-mata estate, of 4115 acres, and sawmill, in estate of J. and D. Sinclair, sold to Mr A. E. Russell for £6500.

Lot 5: Farm at Wainui-o-mata containing 370 acres, with homestead and orchard, in Sinclair's estate, sold to Mr A. de B. Brandon for £1000

Lot 6: Dwelling houses, Waiwetu-road, Lower Hutt, sold to Mr C. B. Izard for £500

The following properties were withdrawn at the undermentioned prices:- Farm, Gollan's Valley £500; Property containing 1042 acres, Wainui-o-mata £1000.

Evening Post 08 Feb 1883 The Wainuiomata Watershed – An Important Point

At the ordinary fortnightly meeting of the Waste Lands Board held this afternoon, there being present Messrs J. G. Holdsworth (Commissioner of Crown Lands), H. Bunny, T. Mason M.H.R., and W. W. Taylor, the following communication was received from the Mayor of Wellington:- City Council Offices, Wellington, 7th February, 1883. Gentlemen – Having ascertained from a search of the Land Office Register that section 94, Wainuiomata district, containing 640 acres, has not passed out of the possession of the Crown, I respectfully request, on behalf of the citizens of Wellington, that it may be reserved from sale. I am aware that application has been made for the land in the names of J. and D. Sinclair, but that application is specially minuted in the Land Office records as being “subject to the approval of the Waste Land Board.” That approval has not yet been given, and the sale has not gone beyond the “application” stage. The land described is in the watershed area of the Wainui-o-mata water system, upon which the Wellington Corporation has spent the large sum of £130,000, and the Land Board would perform a great public service by reserving the land from sale. I therefore earnestly hope the Board will see its way to grant this request. I have the honour, &c., George Fisher, Mayor. The Commissioner said he would like to put the Board in possession of the facts of the case. Sections 34, 35 and 36 were sections that had been selected under the New Zealand Company's regulations, and had come into the hands of the Sinclairs. In fact they were thrown up by others, and were granted to them by the Government as far back as 1867. Now, on the 10th February, 1874, the sons of Mr Sinclair, deceased, and others – George Michael Nation and Robert O'Connor – applied for 640 acres of pastoral land. They paid £120 in cash, and another £120 in volunteer scrip, taking the land in question at 7s 6d per acre. This application was duly dealt with, and it was granted, “subject to survey, to prior selections, and to the approval of the Waste Lands Board.” Till within the last few months the land had not been surveyed, and the Surveyor's report not yet having been received, the approval of the Waste Lands Board had not been given. Mr Mason observed that the land was certainly “pastoral,” if not more inferior even than that. The Commissioner thought the Board ought not to deal further with the matter until the surveyor's report had been received. Mr Bunny would be glad, if possible, to comply with the request of the Mayor. They must bear in mind that to the Sinclair's themselves this matter did not now signify anything. Mr Mason – What position will they be in then? Mr Bunny – They will get their money and scrip back again of course. The Commissioner said no doubt these would have to be refunded if the Mayor's request were acceded to. But the question was, was the fact of attaching a special value to the land to-day to influence the

Board in committing an action which they probably would not have done two years ago? Mr Bunny pointed out that by acceding to the Mayor's request they would not be injuring a single private individual, because the Sinclair estate had been sold and had fallen into the hands of speculators. He thought the Board ought to reserve the land if possible. He was prepared to move to that effect. The Commissioner suggested that the motion should take the following form:- "That further consideration of the matter be postponed pending the receipt of the surveyor's report." For himself, he was only anxious they should do what was right in the matter; and in every case coming before them the Board had decided applications for pastoral land upon the character of the land itself, apart from any surrounding circumstances. Mr Bunny accepted the suggestion, and the motion was then unanimously agreed to. Mr Mason would like to know something of the position of the Sinclairs in the matter. It did not seem to be quite fair to them altogether. It was extraordinary, moreover, that the Corporation did not take pains to secure their watershed before commencing such large works. The Commissioner here produced several maps of the locality, and made the following explanation:- The Messrs Sinclairs' previous purchases, as far back as 1867, took in the whole of the water supply in Moore's Valley from section 26 to section 70, and the 640 acres of pastoral land applied for in 1874 were behind those sections, forming a very material security for the non-interference with the waters of the Wainuiomata, and with 64,000 acres withheld from sale formed the principal source of the water supply. The matter then dropped.

Evening Post 10 Feb 1883 The Wainui-o-mata Waterworks - Completion of the Long Tunnel

An important stage in the progress of the Wainui-o-mata Waterworks was reached this morning, when the boring of what is known as the "Long Tunnel" was completed. This is the tunnel which carried the pipes through the hill which separates the Wainui-o-mata Valley from Wellington Harbour. It was commenced nearly three years ago, and the progress has necessarily been slow from the fact that only four men could work at it at a time, namely, two at each end. Part of the tunnel has had to be carried through very hard rock, and this has made the work more tedious than was ever contemplated originally. However, the men have been working night and day in eight hour shifts ever since they started, and the patience and perseverance of those engaged was at length rewarded at 4 o'clock this morning, when the two working parties who had been boring away so industriously from each side of the hill met at the centre. So exact were the calculations that there was not an inch difference between the two sections of the tunnel. Considering that the latter is 37 chains, or nearly half-a-mile in length, this is a feat of which an engineer may justly feel proud. The tunnel, in fact, is believed to be the longest in the North Island, the longest on the Rimutaka railway being only 30 chains in length. Its shape is that of a horse-shoe, the height being 6ft, and the greatest transverse diameter 5ft 6in. It is lined partly with 9in brickwork, and partly with moulded concrete blocks. The lining is completed with the exception of five or six chains, which will very soon be finished. The tunnel has been carried out under the entire supervision of Mr Ward, the Assistant-Engineer, by whom the line and levels have been furnished. The contractor is Mr W. F. Oakes, and the foreman of the works Mr Anderson, to whose care and skill is largely due the fact that not a single accident has occurred throughout the entire progress of the works. Dynamite has had to be freely used for blasting out the hard rock referred to, and it was found that after the boring had proceeded some 15 chains it was impossible to work in the confined space available without some special means of ventilating the tunnel. The process by which air is driven into subterranean works by means of falling water was adopted and found to be attended with entire success. We have said that the completion of the tunnel is an important stage in the process of the waterworks. It is, in fact, the main factor on which the date of the completion of the waterworks has all along depended. Now that it has been practically completed, but little remains to be done before the pure stream of the Wainui-o-mata finds its way into the houses of the citizens of Wellington. The mains have been laid from Wellington to the foot of the Wainui-o-mata hill, and from the other side of the hill to the reservoir. The only works of any importance now to be executed consist of the construction of the dam, tenders for which will be invited immediately, and the laying of about 50 chains of pipes up the incline and through the tunnel. It is hoped that this will be finished by about June next, and the new water supply then turned into the Wellington mains.

Evening Post 14 Feb 1883 Visit to the Wainui-o-mata Waterworks

The completion, after nearly three years' continuous labour, of what is known as the "Long Tunnel," in connection with the Wainui-o-mata waterworks, was celebrated yesterday with considerable festivity. Mr W. F. Oakes, the contractor for these enormous works, had invited the members of the City Council and the officers of the Corporation to visit the site and inspect a portion of the works, and advantage was taken of the presence of the Japanese man-of-war 'Riujo' in these waters to extend the invitation to the officers of that vessel. Accordingly, at half-past 9 o'clock yesterday morning the City Councillors, together with a number of their friends and representatives of the Press, assembled, pursuant to appointment, opposite the City Council Chambers, and were driven out to the Lower Hutt, two four-in-hand 'busses and five waggonettes being called into requisition for that purpose. The Japanese naval officers, of whom thirteen accepted the invitation to join the party, were conveyed as far as the Lower Hutt station by rail about an hour later, being accompanied thither by the Mayor. At the Lower Hutt the train was met by the cavalcade of vehicles containing the "City Fathers" and other visitors, and the naval guests were transferred into one of the large 'busses. Without unnecessary delay the journey was resumed, and the procession wended its way toward the site of the "long tunnel" via McNab's gardens. Here a halt was effected, and the party, which numbered about 80 gentlemen, trooped into the gardens, over which they were shown by the proprietor, who displayed the utmost assiduity in pointing out to the visitors the many beauties which, even at the present season of the year, are to be seen within the boundary of the domain. Nearly half-an-hour was spent in examining the contents of the gardens, and the officers of the 'Riujo' did not endeavor to conceal their delight at the condition of the place, especially at the numerous specimens of Japanese plants and flowers to which their attention was particularly directed. The party next proceeded to the site of the wooden bridge which spans the Hutt River, for the purpose of carrying the large water mains required for the water service. From this spot a move was made in due course in the direction of the "Long Tunnel," a description of which appeared in these columns a few days ago. The tunnel, which is nearly half a mile in length, is intended to carry the pipes through the hill which separates the Wainui-o-mata Valley and the Wellington Harbour, and is pierced through the hill at a point which is situated at a very considerable altitude from the road-level. The mouth of the tunnel is reached from the road by means of a wire tram, driven by machinery placed at the terminus above, one track being made to ascend from the bottom of the hill, while another is made to descend from the top, the two crossing each other at a siding situated at the halfway point. Before attempting to perform the journey up this steep incline a case of champagne was opened, and of this beverage most of the visitors were glad to partake after the hot and dusty ride from the city. At length the trucks began to move. The Mayor, together with as many of the naval officers as could manage to crowd into the truck, were conveyed upwards on the first trip, and their ascent was watched with much anxiety by those below, for the wire-rope appeared anything but equal to the task of hauling up such a stiff incline so heavy a freight. The fears of the spectators, however, were dispelled to a large extent by Mr Oakes, who assured the visitors that the rope would bear a strain of at least five tons. Several members of the party, who were evidently not satisfied with this assurance, preferred to trust to their own legs and hands, and climb up on "all fours" rather than risk the tram ride. No accident occurred, however, till the last trip but one. On that occasion the small truck was filled by eight or nine gentlemen, the majority of whom could have "turned the beam" at more than the average number of stones. Most of the "heavy weights" occupied seats in front, and the consequence was that, when the truck was moving upward, and owing to the precipitous nature of the track almost stood on its end, those sitting at the back received the full benefit of the weight of those in front. It did not excite much surprise therefore to see two gentlemen slip out at the back in anything but a graceful manner. One of them, in fact, was dragged for several yards up the hill, with one leg jammed in the truck and the other grazing the side of the cutting, and a quantity of silver coin fell from his pockets in a continuous stream, marking the line of route. Eventually, however, he got his leg disengaged, and performed the rest of the upward journey on foot. The mouth of the tunnel having been reached, the visitors entered in single file, and traversed it from one end to the other. The experiment proved the reverse of pleasant. The tunnel, to stand upright in which one had to carry his hat in his hand, was ankle-deep in water, in many parts, and as the light afforded by the

candles fixed at regular intervals at one side failed to sufficiently illuminate the interior, it may be readily concluded that the procession was very wet in the feet when it emerged from the other side, many persons having become all the wetter through endeavouring to "pick their way," for the more one tried to avoid the puddles the more certain one was to land in the deepest part of them. A sigh of relief was general when the tunnel had been "done," and many jokes were made at each other's expense. A detour was next made over the hill to the mouth of the tunnel, near which a hut, capable of accommodating about 40 or 50 persons at table, had been decorated both inside and outside with ferns, palms, and flowers, and here a splendid repast had been prepared. The word "Welcome," worked in evergreens, attracted attention at one end of the room. The place being unable to accommodate the whole of the party at one time, the repast was served in two relays. At the first Mr George Fisher occupied the chair, supported by Captain Ito and the officers of the 'Riujiu'. Numerous toasts were honoured. Notable among those was the health of Captain Ito and his officers, which was responded to at great length by the former, whose speech in the Japanese language was duly interpreted to the assembly, and who concluded by calling for three cheers for the Mayor and Corporation, leading the cheers with a hearty "Hip, hip, hip hurrah!" The Mayor next proposed the health of the contractor, Mr Oakes, who appropriately acknowledged the compliment, and Dr Diver proposed "The City Engineer," to which Mr J. D. Baird responded. At the second "relay" Councillor Greenfield occupied the chair, and further toasts were honoured, including the health of "The Mayor," and of the City Engineer, who in his turn proposed the health of the men employed on the work, coupled with the name of Mr James Anderson. Mr C. C. Graham acknowledged the toast of "The Corporation Officials," and Mr Quick the health of "The Guests," and the concluding toast was that of "The Press," coupled with the name of the EVENING POST, to which our representative responded. The city was reached about six o'clock.

Evening Post 14 Feb 1883

The report of the Public Works Committee of the City Council, to be presented at the next meeting of the Council, is unusually brief. It is as follows:- (1) The committee beg to report that application has been made to the Waste Lands Board by the Mayor, on behalf of the Council, for 640 acres of the Wainui-o-mata watershed, and that the matter is now under consideration...

Evening Post 16 Feb 1883 The Wainui-o-mata Watershed

At the meeting of the City Council last night a letter was read which had been addressed by the Town Clerk to Mr A. E. Russell, of Foxton, in which it was stated that the Council were willing to purchase certain sections of the Wainui-o-mata Estate, amounting in all to 434¾ acres, providing they could be obtained for a fair price. In reply the following letter, dated Occidental Hotel, Wellington, 15th February, from Mr Russell, was received:- "I have the honour to inform you, in reply to your memorandum of the 8th instant, that I am not prepared to sell the sections which you mention in your memo, of that date. As, however, I am aware that the City Council is interested in the acquisition of the Wainui-o-mata watershed a portion of which I now own, I make the following proposition for their consideration, viz., that the City Council shall buy from me all my interest in the properties lately held by Messrs J. and D. Sinclair, containing 4166 acres (more or less) and recently purchased by me for seven thousand pounds (£7000). I may mention, for the information of the Council, that the land I offer them was under mortgage to Messrs Levin and Co., as agents for Saville, and to me for a total of £6500. Arrears of interest and other expenses will amount to over £500. I therefore offer the land somewhat under its cost price to me. Should the Council desire to purchase, I will be willing to let the sum of £5500 remain secured in such way as my solicitors may advise, for three (3) years at 8 per cent per annum, payable half yearly, with power to pay off the capital on three months' notice being given. The balance of £1500 due to Mr Saville, 30th September 1883, to be paid, together with interest on the same, from the date of purchase, at 8 per cent per annum, on the 30th September 1883. This offer to remain open for one week from this date." The offer was received with considerable ridicule by the members of the Council, and the Mayor remarked that it was perfectly useless wasting time over it. It was resolved, on the motion of Councillor A. W. Brown, that the offer be declined.

A letter was read from Messrs Brandon, Shaw and Brandon, on behalf of Mr Barnard, claiming compensation for land taken in connection with the Wainui-o-mata waterworks, and damage done by severance, also for removal of portion of the tramway. For the land Mr Barnard claimed £72, being 12 acres at £6 per acre; for the tramway, £250; and for damage caused on account of extra fencing, &c., £50, making £372. He would be willing, however, to take £300 in settlement.

The Mayor said it was very fortunate, in the light of recent events, that they had some hard-headed men of business among the Councillors, and that an agreement had been made with the Messrs Sinclair. It had been said that they had rushed into the construction of expensive works without making proper precautions for the acquirement of the watershed. So far as human wisdom could go, the Council had taken every precaution possible. In addition to the 6500 acres reserved as a watershed, they had assured the right in perpetuity, so long as the Messrs Sinclair remained owners of the property, to use and have benefit of all lands in their possession. He then read the following agreement, signed by the Messrs Sinclair, which he said had never been made public before:- "Re Wainui-o-mata water supply. – We, Messrs J. and D. Sinclair, agree to the following arrangements, viz. – That the Council form a road from the mills to the proposed reservoir, the road to be formed on a gradient suitable for a railway, we undertaking to ballast said line and lay rails, &c., and to carry all cement or other materials for the Corporation or contractor under them, or their servants, that may be required in carrying out the waterworks at Wainui-o-mata. This to be done free of charge. In consideration of above agreement, we agree to allow the Corporation to carry water-race and water-pipes through the whole of our properties at Wainui-o-mata and Lowry Bay district free of any charge or claim for compensation for all time. The Corporation, where passing through grass lands, undertaking to leave the land in proper order after finishing the laying of the pipes."

The Mayor added that the agreement was signed in his presence at Sinclair's mill at the Wainui-o-mata. Councillor Allen remarked that the Corporation had a similar agreement with every other person through whose land they passed. The Mayor said that was so. He added that the Corporation subsequently acquired under proclamation the freehold of the portion of the land which they required for the dam, for which £240 was paid. After mentioning that the land for which Mr Barnard claimed compensation was included in the agreement he had read, the Mayor went on to say that he hoped the public would realize that the Corporation had been compelled to stand with fixed bayonets to keep off these unrighteous claims, which were sent in because it was thought the Corporation were in a helpless position. No greater mistake could be made. Supposing the Council did not acquire one acre of this land, its position was secure. He admitted it would be better to have the freehold of a portion if it could be got at a reasonable price, but he should always oppose anything excessive being paid, and he hoped if these gentlemen pursued their claims they would be fought to the last in a court of law. Councillor Logan remarked that the question of severance would have to be met and some slight compensation would probably have to be paid to Mr Barnard for that account. The discussion then dropped, it being understood that the letter of Messrs Brandon, Shaw & Brandon would be considered by the Public Works Committee.

Evening Post 20 Feb 1883 The Wainui-o-mata Water-shed – To the Editor

Sir – You have laid down the principle that the Corporation must be bound by the strict legal interpretation to be attached to the Sinclair agreement. Very well, let that be so. But what is sauce for the mortgagee's goose is sauce for the municipal gander. On behalf of the Corporation, I have requested the Waste Lands Board not to sanction the alienation of section No.94, Wainui-o-mata, which has been "applied for" by Messrs Sinclair, and I think it will not be difficult to show that if the Board sanctions the sale it will do so in distinct contravention of the Waste Lands Regulations. It has been stated to me, by a gentleman who is undoubtedly an authority upon questions of this nature, that should the surveyor, after examination and survey of the land, declare it to be "pastoral land," it must be granted to the applicants, this opinion being based upon section 8 of the Waste Lands Regulations of 1865, which is as follows:- "All pastoral land may be purchased at the fixed price of seven shillings and sixpence per acre, at any time before or after survey, in the same manner as, and in accordance with, the regulations of the province of Wellington for the purchase of rural lands, but in quantities not less than one square mile, and in such form as may be determined by the Board." Mark the overshadowing stipulation which is embodied in the clause. The land is to be purchased "in the same manner as, and in accordance with, the regulations of the province of Wellington for the purchase of rural lands." Now, what do the regulations for the purchase of rural land say? They say this:- "Rural allotments to be generally of a rectangular form, and extend at least forty chains in depth from roads, rivers," &c. "Every allotment of rural land must, so far as circumstances and the natural features of the country will admit, be selected of a rectangular form, and where fronting upon a river, road, lake, or coast, be of a depth from the front of at least half-a-mile. No such allotment must be selected so as to monopolise the wood or water in any particular locality." This is very strong. The allotment must be rectangular. I have ascertained from persons for many years connected with the survey and sale of waste lands in this province that the rectangle indicated in the regulation is the simple rectangle A B C D – depth twice the length of the frontage. Where fronting upon a river the allotment must be of a depth of at least half-a-mile! And it must not monopolise the wood or water! Now what are the shape and dimensions of section No.94, as "applied for" by Messrs Sinclair? They are these:- There are typographical difficulties in the way of giving an exact delineation of the section, but the illustration is sufficiently accurate for all purposes. It shows how well the section monopolises the river front for four miles and three-quarters, and how completely it subverts the stipulation as to rectangular depth. The selection, in fact, is a water-front monopoly of an unmistakable character. I am afraid to take up any more of your space, because I know how great are the demands upon your columns. The importance of the subject is my apology, and I therefore trust you will see your way to insert this letter. I am, &c., Geo. Fisher. 19th February 1883. [We have *not* laid down the principle that the Corporation must be bound by the strict legal interpretation to be attached to the "Sinclair agreement." On the contrary, we hold strongly that the agreement ought to be construed equitably in its spirit. But we did, and do, regret that the interests of the city should not be more efficiently protected

than by the very loose and irregular document which, we gather from the Mayor's remarks, is all the Corporation has to show as securing even its right of passage – Ed. E.P.]

Evening Post 22 Feb 1883 Messrs Sinclair Application Confirmed

The application of the Mayor of Wellington that section 94, Wainui-o-mata, might be reserved from sale again came up for consideration at this afternoon's meeting of the Waste Lands Board, when the Commissioner of Crown Lands (Mr J. G. Holdsworth) submitted to the Board a further communication which had been received from the Mayor on the subject. It was dated the 9th inst., and ran as follows:- Dear Sir, In reference to my communication of Wednesday last, 7th inst., I wish it to be understood that the Corporation is perfectly willing to repay any sum that may have been advanced in connection with the application to purchase section 94, Wainui-o-mata district, together with interest at the rate of 8 per cent per annum. Will you kindly lay this letter before the Waste Lands Board at its next meeting? I have, &c., George Fisher." The Commissioner also read the surveyor's report on the section in question. It was dated 12th February and was as follows:- "In reply to your memo., number and date as per margin, I have the honour to report as follows on section 94, Wainui-o-mata, containing 666 acres. The whole of the section lies on a steep sidling, and is covered for the most part with mixed bush of good quality, and would be suitable for grazing if cleared, as the soil is good. The sawing timber on the section consists of rimu and white pine, with a small quantity of totara, all lying within easy access of the Messrs Sinclair's tramway. Speaking, generally, there is little or no level land on the section – I have, &c., James McKenzie, for Chief Surveyor." The Commissioner explained, incidentally, that the strip of land in question had not a frontage to water or road, but was simply a frontage to the back line of sections already held by the Messrs Sinclair. Reverting to the Mayor's letter, which appeared in the EVENING POST on Tuesday last, he produced a map of the district and, after pointing out the locality to the members of the Board, said they would perceive that for all practical purposes the section was a rectangular one, though it was not strictly rectangular owing to certain irregularities in the back line. Mr Bunny enquired whether the strip of land about which the Mayor wrote was included in any mortgage of the Sinclairs'. If not, he did not think any harm would be done by reserving the section from sale, in accordance with the Mayor's wish. Mr Mason urged that surely the Board had nothing whatever to do with the private dealings of the purchaser of Crown Lands. Mr Bunny said the Board was asked to reserve the land for the purposes of the Wainui-o-mata water scheme, and so far as his views went he would do all he could to assist the Corporation in that direction so long as by doing so they would not be inflicting any injury in the manner he had indicated. The Board might be doing a great injury to the public of Wellington if they were not cautious in the course they adopted. He moved that the further consideration of the matter be postponed for a fortnight, and in the meantime he would himself enquire into this question of a mortgage for his own satisfaction. Mr Beetham did not consider it was a part of the business of the Board to institute any such enquiries. Mr Bunny urged that the case was an exceptional one, and must be dealt with in an exceptional way. There was no necessity for hurry, and no harm could result to anyone in the matter being adjourned for a fortnight, so that he might satisfy his own mind on the point. Mr Beetham would not object to an adjournment if Mr Bunny wished to satisfy himself respecting any provision of the Act, or difficulty of that kind. The Commissioner held that it would be a most dangerous precedent to adjourn the consideration of an application in order to enquire into a transaction between private parties. The present application ought to be taken on its merits, whether the land belonged to A., B., or C. Mr Mason concurred, and expressed his opinion that the Board ought to fulfill their engagements. They had virtually agreed to let the Messrs Sinclair have this land, and it had been paid for some years ago in good faith. In order to test the feeling of the Board, he moved that Messrs Sinclairs' application as registered, be confirmed. Mr Taylor seconded the motion. Mr Beetham here remarked that if the Corporation wanted the land in question, the could deal with it under the Public Works Act, when the matter could be referred to arbitration. Mr Mason's motion was then carried, Mr Bunny alone recording his vote against it. The application was accordingly confirmed.

Evening Post 28 Feb 1883

In reference to the piercing of the Wainui-o-mata tunnel, a correspondent, signing himself "Fair Play," sends us a letter, of which the following contains the gist:- "I think it only fair that Mr John Barton, whose modesty prevents him from blowing his own trumpet, should get some credit for the satisfactory carrying out of the above work. It was he who made the original surveys, plans, &c., and gave the starting points and levels, also making the calculations."

Evening Post 02 Mar 1883 City Council

The Wainuiomata Waterworks Committee presented the following report:- The Committee beg to report [1] that a claim for compensation on account of the strip of land taken for the water-race, under proclamation of 17th May 1881, has been preferred by Mr Barnard, one of the mortgagees in the estate of Messrs J. and D. Sinclair, in regard to which claim the City Solicitor has, in writing, undertaken to indemnify the Council against loss or damage, but recommends that the Council waive all claims to the rails which have been laid down on the said piece of land by the Messrs Sinclair. [2] that offers of certain portions of the watershed, on certain terms, have been made by Mr A. E. Russell and Messrs Johnston and Co., representing other mortgagees in the estate, and the Committee recommend that the members of the Council visit the locality and make themselves thoroughly acquainted with the topographical features of the country before coming to any conclusion. [3] that Mr A. E. Russell has extended the time for which his offer holds good to the 17th instant. On the motion of the Mayor, as Chairman of the Committee, the report was adopted.

Evening Post 20 Mar 1883

The tender of Messrs G. H. Bayliss & Co. has been accepted by the City Council for the construction of a dam at Wainui, the amount being £3991. The other tenderers were:- James Anderson £4134 4s 6d; D. Sinclair £4396 6s 10d; J. P. Shields £4480 13s 4d; James Cleary £4766 3s 6d; and J. Saunders £4780. There was one informal tender.

Evening Post 28 Mar 1883 City Council – Public Works Committee's Report

The following is a copy of the report to be presented by the Public Works Committee at the next meeting of the City Council:- The Committee beg to report –
1. That Mr A. E. Russell has declined the offer of the Council relative to the proposed purchase of the portion of the Wainui-o-mata water-shed, his property.
2. That certain obstacles have arisen in the way of obtaining access to the dam at the Wainui Waterworks, and the Committee recommend that a sub-committee, consisting of the Mayor and Councillors Greenfield, Thompson, and Allen, be appointed, with full power to arrange matters...
5. That a further advance of £1000 be made to Mr Oakes, on account of his Long Tunnel Contract, provided a sum of £500 be retained in hand until completion of same...

Evening Post 11 Apr 1883 City Council – Public Works Committee's Report

The following report will be submitted by the Public Works Committee at the next meeting of the City Council:- The Committee beg to report – 1. That the contract for formation, &c., of the long tunnel, Wainui-o-mata, is about completed, and the Committee recommend that tenders be at once called for laying the pipes through same...

Evening Post 13 Apr 1883

We learn that Mr G. H. Bayliss, contractor for a portion of the Wainui-o-mata Waterworks, met with rather a serious accident on the works yesterday afternoon. From what we have been able to gather it appears that Mr Bayliss was being driven along the tramway near the dam, when his left foot, which was hanging out of the truck, was struck by the horse, and, getting entangled, the ankle became twisted. We are sorry to hear that the accident will probably have the effect of confining Mr Bayliss to his house for some time.

Evening Post 19 Apr 1883 Wellington City Council – Wainui-o-mata Water Works Extension – To Contractors

Tenders will be received at the office of the undersigned, up to 4 p.m. of Thursday, the 26th instant, for Laying about 40 chains of 30-inch Water Mains through the Wainui Hill Tunnel and along the approaches thereto. Specifications at office of City Surveyor. The lowest or any tender not necessarily accepted. Charles C. Graham, Town Clerk, 19th April 1883.

Evening Post 24 Apr 1883 City Council – Public Works Committee's Report

The following is a copy of the report of the Public Works Committee, to be presented at the next meeting of the City Council:- The committee beg to report... (9) That one half the penalties incurred in Mr D. Sinclair's contract for tunnel at the Wainui-o-mata be remitted...

Evening Post 27 Apr 1883 City Council

The usual fortnightly meeting of the City Council took place last night, and was attended by the Mayor (Mr G. Fisher), Councillors, A. W. and S. Brown, Greenfield, McKenzie, Thompson, Newman, Maginnity, Logan, Diver, Miller and Allen. Tenders were opened for pipe-laying in the Long Tunnel. There were three tenders received, and that of John Warden, the amount of which did not transpire, was accepted.

Report of Surveys of New Zealand for 1882-1883 – Appendices to the Journal of the House of Representatives 1883 C2 p15

Wellington – Settlement Surveys. The lands surveyed under this head were either to define the remaining applications made in conformity with the original Wellington Land Regulations, or of ordinary Crown lands for sale; and comprise the Himatangi Block, South and East Mauriceville, and Dreyer's Rock country, and areas in the Wangaehu, Wainuiomata, Awhea, Pohangina, and Pakowhai Districts. There are now no arrears of applications to be defined...

Evening Post 31 Aug 1883 The City Solicitor and Town Clerk

A long, and at times exciting, discussion took place at the meeting of the City Council last night upon the Mayor's motion – "That a solicitor Town Clerk be appointed, at a salary not exceeding £1000 per annum."... At the opening of the meeting, a letter was read from Mr Travers, asking permission to attend and make a statement regarding the Sinclair business. The Mayor ruled that the City Solicitor could not be heard. Supposing a motion discussing the conduct of a Government officer were tabled in the House, that officer would not be allowed to appear on the floor of the Chamber to attempt to bias the decision of members. Councillor Allen moved, and Councillor Thompson seconded, that Mr Travers be heard, urging that it would be unfair if Mr Travers were not allowed to defend himself. The motion was then put and carried, only the Mayor and Councillor Diver voting against it. Mr Travers was then admitted, and read the following statement:- "I think it necessary, personally, to bring under your notice the following matters in connection with the completion of the

release by the Messrs Sinclair and their mortgagee of the land taken for the reservoir at Wainui-o-mata. When the questions which have been discussed between us in relation to this transaction were first mooted, I was led to believe, both by his Worship the Mayor and the Town Clerk, that I had permitted the sum of £240 to be paid over to the Messrs Sinclair on receipt of a release of the area of the reservoir alone, when, as a fact, that payment was intended to have covered the land taken for the pipe-track as well as that taken for the reservoir. Believing these representations to have been well founded, and acting under the impression that the instructions given to me for the release extended to 'all the lands taken from the Messrs Sinclair under the proclamation.' I, without investigating the question any further, assumed that I had been guilty of an oversight in accepting a release limited in its operation to the reservoir area alone, and thereupon, both verbally and by written memorandum, undertook to indemnify the Corporation from such loss as they had sustained by reason of that oversight. Within the last few days, however, I have become aware of circumstances which satisfy me that no oversight whatsoever had been committed, and that the release executed by the Messrs Sinclair carried into effect the exact terms of the arrangement made with those gentlemen. When I was first informed of this, namely, on the 21st instant, I addressed a memorandum to the Town Clerk, to the terms of which I now beg leave to refer. To this memorandum I have received no reply, but I have become aware that the Council, by resolution duly minuted in its proceedings, gave the Town Clerk authority to purchase the site of the reservoir from the Messrs Sinclair at a rate not exceeding £9 per acre, and I have been informed by Mr Waters (agent for the Messrs Sinclair in connection with this matter) that the Town Clerk, after the passing of this resolution, absolutely agreed with him to pay £8 an acre for the reservoir area, and that no mention of the pipe track was made from the beginning to the end of the negotiations. I have in my possession a copy of correspondence on this subject between Mr Waters and the Messrs Sinclair on the one hand, and the Town Clerk on the other, and it corroborates, so far as it goes, the above statement that the pipe track formed no part of the subject of the negotiations. On looking at the instructions sent to me in connection with this matter, I find that the word 'all' does not occur before the word 'lands,' as I had supposed, and it appears to me to be clear, when the actual instructions are read by the light of the correspondence above referred to, and are taken in connection with the arrangement said to have been entered into by the Town Clerk with Mr Waters, that the release, as prepared, is in strict accordance with the contract between the Messrs Sinclair and the Corporation. I have to call the attention of the Council to the Town Clerk's memorandum, No.331, of 11th of January last, in which, referring to the original instructions as set out in his memorandum, No.272, of 23rd of June 1882, he no doubt unintentionally, misquotes the latter by introducing the word 'all' before the word 'lands' where, as above observed, it does not occur. That some arrangement of the nature stated by Mr Waters must have been made with him by the Town Clerk, is evident from the circumstance that, within a day or two after the Town Clerk had been authorized to settle at a price not exceeding £9 an acre, he informed me that 'the Council had arranged to pay the Messrs Sinclair the sum of £240,' &c., whilst, as a fact, no such arrangement had been made with the Council itself. I further call attention to the absence from the memorandum sent to the Messrs Sinclair on this subject of the word 'all' before the word 'land,' and to suggest that their agent, even if there had been no prior correspondence pointing this memorandum, might well, looking to the resolution of the Council, have assumed that the offer contained in it related to the reservoir only. Under these circumstances, I beg, for the present, to withdraw every admission made by me that there was any oversight or neglect on my part, or on that of my late partner, in connection with the release in question, and every offer of compensation made by me based upon the supposed existence of such oversight or neglect, and I venture respectfully to suggest, in view of the fact that I have not received from the Town Clerk any statement in reply to my memorandum of the 21st instant, that he be requested to report to the Council 'whether or not there was anything in his communications with Mr Waters, or with the Messrs Sinclair, which could lead those gentlemen to understand that the £240 offered to them was intended to cover more than the purchase money for the area of the reservoir,' or that a committee should be appointed to enquire into and advise the Council upon the whole transaction. In order that the citizens may know the full amount at stake in this matter, which report has greatly exaggerated, I beg to add that, assuming an oversight to have been committed by me, the possible total loss to the Corporation is £50, and no more, whilst, if no oversight has taken place, the Council can have sustained no loss at all."...[goes on to comment further...]

Evening Post 15 Sep 1883

The Wainui-o-mata Waterworks are all but completed. The whole of the pipes have been laid in position, and Mr Bayliss has almost finished his contract for the construction of the dam, which is being built in a very substantial manner. The principal valve of the works arrived by the barque 'Catalina', from London, a few weeks ago, and is now being taken out to the ground. By the time it is fitted up, the reservoir will have been completed, and before the end of the coming month Wellington citizens will derive the bulk of their water supply from the Wainui-o-mata Valley. The completion of the undertaking will, we understand, be celebrated in a befitting manner.

Evening Post 17 Sep 1883

In reference to the works at the reservoir, Wainui-o-mata, we learn that during the heavy rain which fell up the country a few days ago, the dam filled so suddenly as to overflow the retaining wall now in the course of construction by the contractor, Mr Bayliss, doing a considerable amount of damage to the work. While this retaining wall is being built the ordinary flow of the stream is diverted through a small tunnel which is constructed for the purpose of cleaning out the dam when required. In front of the tunnel there is a strong grating inserted in the concrete walls. The grating, which is made of three-inch angle iron and one-inch round rods of iron, is intended to guard the mouth of the tunnel, but the sudden rise of the water brought down a large segment of a round tree, which toppled over the grating; the one end, by the draw of the water, entered the mouth of the tunnel, the weight of water over it jamming it down behind the grating so firmly that it fitted like a cork in the mouth of a bottle with no room to extract it. The whole of one day last week was spent in trying to get it out by every means, but without success, there being 15 feet of water over it with no means of letting it off. Mr D. Sinclair, the inspector, proposed to build a water-tight dam outside the grating, and then to go down and cut and split the log up as the only means of clearing the tunnel to let the water off and allow the work to proceed. By Mr Sinclair's directions the dam was built and the log extracted piecemeal, although at considerable risk, on account of the great weight of water over the men at work. The weight of the water, although well stayed, has bent the angle irons, and the rods of the grating are twisted in all manner of ways. This being done, the log was cleared and the tunnel opened on Thursday night. The water is all down and the work is now started again, although it has caused the delay of a week.

Evening Post 25 Sep 1883 City Council – Public Works Committee's Report

... (11) That the purchase of 1000 acres of the Wainui-o-mata water-shed from Messrs Johnston & Co. be completed on the same being brought under the Land Transfer Act... (15) That an advance of £200 be made to Mr G. H. Bayliss, on account of his dam contract, with the consent of his sureties. (16) That a further extension of one month be granted to Mr Bayliss in the above contract, in consequence of loss of time through heavy floods...

Evening Post 23 Oct 1883 The Accident to the Wainui-o-mata Dam

At last night's meeting of the Public Works Committee of the City Council, Mr G. H. Bayliss, the contractor for the dam at Wainui-o-mata, was in attendance in support of a written invitation to Councillors to visit the works and inspect the damage that had been done by the recent floods. With regard to the accident the City Engineer made a report as to the nature of the damage and said it would now be impossible for Mr Bayliss to complete the contract without a further extension of time. Councillor Newman enquired the extent of the damage as represented in money. Mr Bayliss could not form an accurate idea until he had made proper calculation, but added that the damage was very considerable. Councillor Danks asked the contractor if he considered the present means of carrying off storm water were sufficient? The Mayor thought this was rather a question to be asked of an engineering expert, not of a contractor. Councillor Danks then asked what made the "backing" of the dam give way? Mr Bayliss – The immense body of storm water, which was not able to get away through

the existing means. The body of water was too great, and it went over the main wall. Councillor Newman enquired of the City Engineer if this overflow was entirely due to the fact that the present water-race and tunnel for by-wash were insufficient. The City Engineer said the race and by-wash were not intended to take flood water at all, the intention being that the overflow from the river should go over the dam. Councillor Newman asked if the Engineer made provision for a flood of this kind when specifying the arrangements for the construction of the dam. The Engineer replied that when the dam was commenced the contractor had a flume, and no one had the slightest conception that such a flood as this would have occurred. The flume had been blocked up owing to the advancement of the works. Councillor Wilson was unable to understand why the contractor did not then take additional precautions against such a flood. Councillor Richardson interposed that the committee were not there to discuss the manner in which the contractor was setting about his work. The Mayor held that the question was one which did not seriously concern the Council at all. The contractor would have to bear that loss, and the worst that could happen to the Council would be to have to grant a further extension of time. He hoped the committee would accept the contractor's invitation to visit the works, because quite independently of this specific occasion, it was the paramount duty of every Councillor during the carrying out of a work of such magnitude to visit the works periodically. For his part, he had visited the works frequently in the past, not as a matter of pleasure, but simply as a matter of duty. (Councillor A. W. Brown – "Any trout?" and laughter.) Councillor Wilson submitted that this question did concern the Council, seeing that a further extension of time would have to be asked for, and these repeatedly-granted extensions placed other contractors in a very unfair position. (Hear, hear.) The Mayor wished it to be understood that he was not speaking in favour of the contractor. Mr Bayliss would lose about £250 by this occurrence, and it was not of his own seeking that he was about to apply for an extension. Councillor Thompson agreed that it would be a wise thing to visit the works as requested. He had never gone on trout-fishing excursions to Wainui-o-mata (laughter), but at the same time, whenever he went he managed to combine pleasure with business. It was agreed that the Committee should visit the works on Wednesday, leaving the Council Chamber at a quarter to 9 a.m. Councillor Newman, before the subject was dropped, said there was a moral to this incident, and that was that the Council should steadily set its face against granting extensions to contractors in future. Had this rule been enforced in the present instance, the works would have been completed long ago, and the accident referred to would never have occurred. (Hear, hear.) Councillor Danks supplemented this by expressing his belief that there was nothing to prevent the dam being constructed during the past summer – or even two years ago – instead of during the winter months.

Evening Post 25 Oct 1883 The Accident to the Wainui-o-mata Dam – Official Visit to the Works

Pursuant to a resolution adopted at a meeting of the Public Works Committee on Monday evening, several members of the City Council proceeded to Wainui-o-mata yesterday for the purpose of inspecting the damage done to the waterworks by the recent flooding of the river. The party was composed of the Mayor, Councillors Richardson, FitzGerald, Miller, Danks, and Wilson, the City Engineer (Mr Baird), a few prominent citizens, and the representative of the Evening Post. It included also a visitor to this city in the person of Mr Shaw, a member of one of the principal suburban Councils in the neighbourhood of Sydney, who was present at the invitation of Councillor Richardson. Three waggonettes served to convey the party to the spot, a start being effected from the Council Chamber at 9 a.m. After a very pleasant drive, the weather being simply magnificent – the site formerly occupied by Messrs Sinclair and Sons' sawmills at Wainui-o-mata, which is as near to the waterworks dam as ordinary vehicles can get, was reached about noon. Here the visitors alighted, and some light refreshments having been partaken of in a neighbouring shed devoted to the storing cement, the party proceeded to perform the remainder of the journey on foot. There is a tramway from this spot to the dam, but owing to a landslip on the line it was found impracticable to make use of it on this occasion. A twenty minutes' walk brought the visitors to the dam, where they were received by Mr G. H. Bayliss, contractor, and shown over the reservoir works. It was at Mr Bayliss' solicitation that the Council paid the present visit, Mr Bayliss being desirous that Councillors should make themselves acquainted with the nature of the damage which had been sustained, thereby rendering themselves more competent to judge of the extension of time which it would be reasonable to

concede for the completion of the contract than would otherwise be possible. The damage did not require to be pointed out. A large gap in the face-wall of the dam presented itself to view, this portion of the concrete wall having been washed down by the force of the water. The "filling-in" at the back of that portion of the dam over which it is proposed that the surplus water shall make its escape has been washed clean out. As previously explained, at the time of the flood this filling-in only required to be coated over with boulders set in cement, and had this been done in time the damage indicated could not, of course, have happened. Men are now employed in replacing the filling-in, a task which, owing to the small number of hands that can be set upon it at one time, must occupy at least a month. So great was the force of water at this spot that after the filling-in had disappeared a hole several feet deep was washed out of the solid rock at the bottom. The nature of the damage, however, is such that it need not necessarily interfere with the laying of the water supply to town, though whether, in view of the present plentiful supply by means of another source, it will be desirable to do this until the whole of the works are completed is another question. The only thing, in fact, which prevents the immediate laying on of the water is the absence of a safety-valve at Petone. This is being supplied, and will be finished in a few days. Its object is to stop the water at Petone in the event of any pipe bursting along the Hutt road, an occurrence which might otherwise result in the flooding of the Government railway line and landing the civic authorities into legal trouble. The apparatus to be used for the safety-valve is of a self-acting character. When the velocity of the water reaches a certain mean rate the valve will instantly close, the apparatus being described as wonderful in its simplicity. As a matter of fact the whole of the pipes have already been charged from both ends, and one or two "bursts" have taken place. A pipe in the long tunnel cracked, but the crack has been healed by means of indiarubber fastened down with iron bands. Another pipe burst on the smaller bridge over the river, and a third along the Wainui-o-mata road. In each case they were easily capable of repair. The party returned to town about 5 o'clock in the afternoon and the proposed extension of time will present itself for consideration at the Council in due course.

Evening Post 26 Oct 1883

A claim for compensation in connection with the accident to the Wainui-o-mata dam was preferred by Mr G. H. Bayliss, contractor, at last night's meeting of the City Council. Mr Bayliss wrote stating that the losses he had sustained, and for which he asked to be recouped, had not been caused through any fault on his part. The first damage was caused by a log of timber blocking up the sluice and causing an overflow, resulting in the washing away of part of the filling in – a loss of £150. The rock filling had again been washed away by the recent floods, and the concrete wall had, moreover, sustained damage which might have been prevented if the engineer had allowed him to back it up, as he had previously pointed out to that official, and the cost of the second damage was £230. The Mayor said the Council were not in a position to discuss the letter that evening, and it was therefore referred to the Public Works Committee.

Evening Post 06 Nov 1883 Another Accident to the Wainui-o-mata Dam – The Contractor and the Corporation

The claim of Mr G. H. Bayliss, contractor for the construction of the Wainui-o-mata dam, for compensation on account of damage sustained by the works during the flooding of the river, came up for consideration at last night's meeting of the City Public Works Committee. It transpired during the discussion that Mr Bayliss had written a further letter informing the Council that the "backing" of the dam had again been washed out by the flood of Sunday night, and stating that it would be useless to attempt to complete this work until some additional means were meanwhile provided for carrying off the storm water. With regard to Mr Bayliss' claim for compensation, the City Engineer reported that according to the 7th clause of the contract the contractor was held responsible for any injury to the work during its progress. He added that since the recent visit of the Council to the works the contractor had cut an outlet for the storm water across the table land, but it did not seem to be sufficient, as it was not large enough. The contract time – five months – had expired nearly two months ago, and it was clearly stipulated in the contract that the contractor must be responsible for any damage done while the work was in progress. Moreover, Mr Bayliss had removed the bars from the grating without his knowledge or consent. The Chairman (Councillor A. W. Brown) said this was a serious matter, and

the Council ought to come to a definite decision upon it. Councillor Danks thought the committee ought to hear what Mr Bayliss had to say upon the subject in the first place. Mr Bayliss was accordingly admitted to the committee. He stated that when the flood washed backing out on the previous night the work was near completion. The Chairman – You say that until some other outlet is procured it will be useless to attempt to complete the work. Mr Bayliss – I contend that the Council ought to provide means for carrying the water off. The Chairman said the Council could not acknowledge any such obligation. In reply to Councillor Danks, Mr Bayliss stated that the upright grating in front of the tunnel had never been fixed, consequently he had not moved it. Replying to the Engineer, Mr Bayliss admitted that he had removed the bars of the grating. The log which caused the first damage came over the top, where there was no hood. He added, in response to further questions, that the top grating was to have been provided originally, an allegation, however, which the Engineer disputed, explaining that it was only to be provided if found necessary. The Mayor – Are you likely to go to law, Mr Bayliss, supposing the Council decline to admit all this claim? My Bayliss – I don't know about going to law; but I certainly can't suffer this loss. Councillor Petherick – How long are you over your contract time now? The Mayor – That's the point, if we are going to law. The Engineer – He will have been two months over next Thursday. Councillor McKenzie – If the contract had been completed within the five months, would he have sustained any loss? The Engineer – No; the first damage occurred after the expiration of the contract time. Mr Bayliss, having nothing further to say, then retired, and his case was further discussed by the committee. The Mayor remarked that Mr Bayliss seemed to very much under-estimate the business capacities of the Council. If the contract had been completed in the proper time, no difficulty would have ensued, and because the Council indulgently granted an extension of time, it did not follow that they agreed to guarantee him against all the evils which might befall him. He moved that the claim be not recognized. The motion was carried unanimously. The Town Clerk mentioned that he had received another letter from the contractor, who pointed out that no action had yet been taken to clear away a slip of earth from the tramway leading to the dam. He asked that this might be done. The Engineer reported that as the Corporation had no further use for the tram he had not the slightest intention of clearing away the slip. Councillor McKenzie moved that the application be not recognized, and the motion was carried without dissent.

Evening Post 04 Dec 1883

... at last night's meeting of the Public Works Committee of the City Council concerning water supply generally, Councillor Petherick asked the Engineer when the Wainui-o-mata waterworks were expected to be completed. He also wanted to know what was the cause of the delay. Mr Baird – I think the Councillors know pretty well why it is. Councillor Petherick – I don't know. Mr Baird – You ought to know. The Councillors have been down to the works to inspect them for that purpose. Councillor Petherick – Mr Chairman, I ask the question in a business-like manner. The Engineer doesn't appear to know. (Councillor Maginnity, derisively – “Hear, hear.”) Why can't he give us an answer? Is it because he is going out of office? (Loud laughter.) Councillor Newman, without casting reflections, would like to know when the works would be finished. Mr Baird – The water can be brought in at any time that the Council likes to take the responsibility of filling the dam – at the end of the week if they desire it. Mr Bayliss' contract will be finished in about a month. Councillor A. W. Brown – Barring floods. Mr Baird – Of course. Councillor Brown – If a flood came to-night the dam would be washed away again. Mr Baird – Probably. Councillor Richardson expressed his opinion that until the works were ready for use water for machinery should be cut off so as to protect the domestic supply. Mr Baird said the reservoir was quite full at present. Councillor Wilson afterward moved “that notice be given to the contractor that all penalties will be strictly enforced, and that the work must be proceeded with without delay.” Councillor FitzGerald was opposed to harassing the contractor, who, he understood, had as many men engaged on the work as he could put on, and he urged Councillor Wilson to withdraw the motion. Contending that the contractor had been only too leniently dealt with in the past, Councillor Wilson declined to do so, and the motion was carried.

Evening Post 21 Dec 1883

The inefficient water supply to the higher parts of the city was again alluded to at the meeting of the City Council held last evening... In reply to Councillor Richardson, the City Surveyor said he saw nothing to prevent the supply from Wainui-o-mata being turned on by Tuesday next. Such a course, however, would necessitate the appointment of an officer to keep a lookout for the bursting of pipes and the consequent occurrence of flood. He did not think it would interfere with Mr Bayliss's contract or other works... Councillor Petherick thought it would be inadvisable to take any step calculated to interfere with the contract of Mr Bayliss in any way, and suggested the matter should stand over for the present. After further discussion, the motion was carried by 7 to 2.

Evening Post 24 Jan 1884 The Damage to the Wainui Waterworks – The Engineer's Report

The Acting City Engineer, Mr J. D. Baird, returned last evening from his visit of inspection to the waterworks at Wainui-o-mata, where, as we mentioned yesterday, such serious damage was done by the great flood on Tuesday last, resulting from the unprecedented rainstorm of the previous day. It appears that the river rose rapidly and steadily during Monday night, and attained its greatest height on Tuesday morning, remaining at that point for about five hours, when it gradually receded, having meanwhile done all the mischief, which will take at least four months to repair. It will be recollected that on two former occasions extensive injury and delay was caused to the work by exceptionally severe floods, but this has been by far the worst of all and the more unlucky, inasmuch as it has occurred when the work had been absolutely completed for nearly a week, although the contractor, Mr Bayliss, was still responsible for its maintenance in good order until two months should have elapsed from the date of completion. It will be seen from what follows that there is some doubt as to the interpretation of this provision in the contract. Mr Baird states that the contract was finally completed last Wednesday evening, and it only remained for the wet cement to have time to dry and consolidate for the work to be thoroughly durable and able to defy all the attacks of storm and flood. Unluckily, this necessary respite was not granted. The concluding piece of work done was to fill in the "grouting" of one corner, which had to be left until the last in order that the carts conveying sand and other materials might have room to turn. It may be explained that the space between the upper retaining wall of the dam, about 26 feet high, against which the weight of the water rests, and the lower wall at the foot of the dam is filled in with rubble, and above all is a covering of stone boulders laid in concrete and filled with grouting – or thin mortar – so that the whole when dry would form a solid external facing. The dam was, in fact, paved with boulders on two feet of cement, all crevices being filled in, as above described, with liquid cement. The work was finally passed by Mr Baird on Thursday, and was duly taken over by the Corporation, the concluding payments being made, a custodian placed in charge of the reservoir, and the water turned into the city mains. The work appears to have stood all right when the flood had materially exceeded the normal height of floods. But after a time, when the water had attained a height of 11 feet over the dam, and this enormous volume was rushing down with the full force of an overflow, the structure began to give way. There is a difference of opinion as to the manner in which the first inroad was effected by the flood. One theory is that the last finished portion of cement work, being still "green" or slightly soft owing to incomplete consolidation, succumbed to the excessive scour, and allowed the first breach to be made in the work. It is asserted, however, on the other hand, that the cement, even if not quite set, would not have given way to the direct attack of the water, and that it only yielded through being assailed in the rear, as it were, owing to the flood being so excessive as to rise over all the cement protected parts and to get at the ordinary unprotected soil. This it swiftly cut away, and thus obtaining a point of advantage from which to attack the dam-filling, tore and scoured and swept it away in detail, boulder by boulder, until nothing but the two retaining walls, upper and lower, were left standing. Whatever the immediate cause, that was what happened. Everything but the walls is swept away. Unfortunately this is not the full sum of the mischief. A temporary channel had been cut, by the contractor, through a neck of land, to serve as an overflow while the work was under construction. This overflow channel was about 7ft deep and 5ft wide. On the dam being finished the temporary channel was filled in by the contractor and closed at its entrance with concrete. But here again the extraordinary height of the

flood enabled the water to find access to the side and back of the channel. A way once made, the rest was easy. All the filling was swept out, and, more than this, a new channel, no less than 30ft wide and 25ft deep, was actually cut by the torrent through the solid rocky natural formation. The workmen's huts very narrowly escaped being washed away by the irresistible torrent, and they were saved only just in time. The consequence is that this new river will have to be dammed up, as well as the regular dam being repaired, before the water service can be renewed. It is possible means may be found to utilize it partially by inserting, before filling up the chasm, an extra relief tunnel for flushing the bottom or in case of future floods. This, however, will be an expensive affair, as indeed will all the requisite repairs. The cost is at present estimated at about £2000, and the time required at about four months, even should no other flood intervene to enhance the difficulty. The mishap has been most unfortunate, upon whomever the loss may fall. We understand there is some doubt as to the extent to which the contractor's liability to two months' maintenance applies to such a case as this in which the damage is due to a flood of such abnormal and unforeseen height. We believe the City Engineer holds the liability to include responsibility for making good any damage that may occur within the two months limit, but that the contractor and his advisers contend he is not responsible, because on the engineer's own certificate the work was delivered to the Corporation in good order, and finally completed according to the drawings and specifications, from which he was not at liberty to depart, even had he deemed such departure necessary for the safety of the work. Either way, the affair will be a very awkward one for all concerned. Mr N. Marchant, C.E., has gone out to Wainui-o-mata this afternoon to inspect the work and damage, and the City Council meets to-day to consider the situation.

Evening Post 25 Jan 1884 The Wainui Waterworks – Special Meeting of the City Council

A special meeting of the City Council was held yesterday afternoon in reference to the damage to the Wainui Waterworks. Present – Councillors A. W. Brown (in the chair), Petherick, Miller, FitzGerald, Wilson, Richardson, Maginnity, and McKenzie. The acting City Engineer (Mr J. D. Baird) said that when he was out at the works the previous day, the river was too high for him to make a thorough examination, and he preferred not to make a written report until he was able to state exactly the extent of the damage. He briefly reported orally, however, what had happened in consequence of the floods, as already described in the Evening Post. He urged that the Council should go out as early as possible, and see the damage for themselves. Councillor Petherick urged that there was no benefit to be derived by the Council going out to the dam. Councillor Danks asked if any private individual would entrust a man to build even a private house without going to look at it? The objection made to going out to the works showed a want of sense not often to be met with in a man's lifetime. He added that he was always under the impression that the peninsula, through which the river had cut a new course, was of solid rock. He was very much surprised to find now that it was simply a boulder bank. Mr Baird – It is a conglomerate. Councillor Richardson moved that the Council visit the dam as early as possible. Councillor Wilson seconded, and criticized the engineering character of the works. In regard to Councillor Petherick's remarks he thought it was the duty of every member to see the works. If he could not do so at his own expense he ought to do so at the expense of the Council. The Chairman deprecated any remarks being made likely to prejudice the Council in any litigation with the contractor. He pointed out the work had been carried out under the supervision not only of Mr Baird but also of Mr Blackett, and suggested that the latter should be requested to visit the dam with the Council. It was a very important matter, and it must be remembered that the contractor had to maintain the works for two months, and had two sureties to his contract. Councillor McKenzie said he had pointed out that there was likely to be percolation through the peninsula, but the Engineer said there was not likely to be anything of the sort, and if it did occur they could put a wall of cement through the centre. He (Councillor McKenzie) had been out to the works at his own expense on several occasions. Councillor Petherick had not spent sixpence on the thing, and not only so, he wanted to prevent proper surveillance being exercised over the work. If they did not look after the interests of the ratepayers they ought not to be there. He thought it premature to discuss with whom the fault lay. (Hear, hear.) Mr Baird, in reference to the character of the peninsula, said that when the waterworks were laid out, they had every reason to believe that there was rock passing right through the whole space. Councillors could see that the sides of the cutting were standing upright, and in some places there was an inclination inward, so that

the stuff, if not solid rock was as hard as any rock. The first time they found out it was not rock was when they put Sinclair's tunnel through. He then spoke to Mr Blackett, who said the stuff was perfectly sound, and all it wanted was a top face to prevent the water from getting at it. This was done. It was a conglomerate as hard as any rock. Councillor Petherick expressed a wish to reply to some of the "personal" speeches made by other Councillors. After explaining that the contract time for the dam had expired before he entered the Council, he said that at the last meeting he stated that one of the heaviest floods, designated by the natives the rata flood, occurred in the summer. The Councillors sneered at him. Every word he had said about the Wainui waterworks had come true. The engineer was now in as bad a position as ever, money was still going out, and God knew when they would get the water. They might be in the same predicament this time next year that they were now. He always said that Wainui was not a suitable place for waterworks. They had exceeded their loan, and where were they going to get the money from? Yet the Council wanted to make him a scapegrace (Laughter.) Councillor Danks would like Councillor Petherick to explain where the waste of money had occurred, and give them his great knowledge of waterworks. He was prepared to sit there till 12 o'clock at night to hear Councillor Petherick expatiate on his great knowledge of waterworks. It was only amusing – like going to the theatre – to listen to him. (Laughter.) As Mr Baird was engaged in the Supreme Court next day (Friday), it was agreed that the Council, Mr Baird, and Mr Blackett should visit the dam to-morrow (Saturday). The Chairman remarked that he thought it was the duty of officers of the Council to provide some light refreshments, notwithstanding what had been said on the subject. The Council then adjourned.

Evening Post 26 Jan 1884 The Accident to the Wainui Waterworks

The official visit of the City Councillors to the scene of the Wainui-o-mata disaster took place yesterday, instead of to-day as arranged. The regular official party comprised the Mayor, Councillors Richardson, Maginnity, Danks, and McKenzie, with the Town Clerk, the Acting City Engineer, and some subordinate officers of the Engineer's Department. Another party of inspection also went out independently, consisting of Councillor Petherick, Mr Petford, and Mr McKeever. The scene of the catastrophe was duly viewed and the work closely examined by the visitors, who returned to town in the evening. The impressions created in the minds of Councillors seems to have been – first, that the destruction has been even more serious and complete than was supposed; and secondly, that, whether the work were technically in accordance with the specifications or not – which, of course, is purely a question for professional experts – it assuredly was not of so substantial a character as was necessary in view of the strain certain to be imposed upon it, even irrespective of abnormal floods, such as that of last Tuesday. In the first place a grave mistake was admittedly committed in assuming the solidity of the peninsular tongue of land which practically forms a material part of the dam. It was taken for granted, judging from external appearances, that this consisted of solid rock throughout, but so far as we can learn, this theory was never verified by boring. The thing was simply taken for granted, and a mere thin facing wall of concrete set up to intercept any possible percolation. It turns out, however, that the peninsula upon whose solidity so much depended was a mere mass of separate boulders, earth, &c., which became swiftly disintegrated at the first ingress of water, although it had been consolidated into a mass sufficiently solid to retain a perpendicular face on each side of the huge channel some 40 yards long, 30ft wide, and 35ft deep, cut through the peninsula by the flood. It has already been explained in these columns that the first inroad was made by the torrent through the filled-up flume previously cut by the contractor to lower the water while he was finishing the dam. That flume is said to have been unauthorized. At all events it added a fresh element of weakness to the deceptive formation on which hung the safety of the work. Here then we have two factors of weakness – the intrinsic want of solidity on the part of the ground and the breach made in it by the flume. A third has to be added. The quality of the cement of which the facing wall is constructed has been the subject of much unfavourable comment. Specimens have been shown to us by Councillors Richardson and Petherick. Without professing to pass judgment on so strictly technical a question, we may state that the concrete readily crumbled to pieces between the fingers, and this not only in the case of that taken from the places where it was alleged to be "green," but also from the wall, where it is known to have been in position more than six months. The

coping of the wall could be broken off readily with fingers, and the concrete part above the surface of the ground seemed equally friable. It is for engineers to say whether this was according to specification, but it is abundantly manifest to anybody that the strength was utterly inadequate. Councillor Petherick contends that a fourth element of weakness existed in the fact that the vertical end of the wall in Mr Bayliss's contract abutted against the end of the wall in Mr Sinclair's contract, without the two walls being so connected together as to become one continuous structure, and he asserts, as a practical builder, that this lack of continuous strength assisted to bring about the destruction of the wall. That, too, is a matter for experts to decide. The present situation is that the whole body of the river is now flowing through the chasm it has cut through the tongue or peninsula. As to the dam proper, there is little to add to what we published on Thursday. We then described very fully the nature of the damage and the various theories set up to account for it. It may be added, however, that in this case also the quality of some of the concrete is called in question. No reliable estimate is yet practicable as to the cost of repairs. The Acting City Engineer puts it roughly at £1500 to £2000. The Councillors formed various opinions, which being those of unprofessional men, are, of course, of no value. Some outsiders, engineering experts, freely express the opinion that the work will not be rendered permanently safe and durable, except at a further expenditure of £15,000 or £20,000; but we can only hope this may prove an exaggerated estimate. Councillor Petherick has pointedly called our attention to what he deems the dangerous exposure of some miles of concrete fluming (through which the water is conveyed to the main) to landslips, which he maintains may at any time cause the destruction of the flume and the stoppage of the supply.

Evening Post 16 Feb 1884 The Wainui-o-mata Waterworks

An engineering correspondent has favoured us with the following interesting notes on a recent private visit of inspection he made to the Wainui-o-mata waterworks:- First, as to why the dam broke. The water must have flowed over the by-wash first of all for some time before the breach was made in the dam itself. All the slope or "apron" of this is washed away. The theory is that at the bottom there is a rock, near which the concrete had not long been finished. This rock is at such an angle as might cause an eddy, and the supposition is that the eddy caused some of the stones to be washed out of the slope where the cement was not hard, and once started the whole apron would rapidly go like an arch without a keystone. From a careful examination of this part, I am inclined to think that that supposition is pretty near correct. I am told that the by-wash is about 83 feet wide, and the water would require to flow over it near 4 feet deep before it would be level with the top of the reservoir. This certainly is an exceedingly large provision for storm-water. In reference to the breaking in the wall of the dam, it has been stated by Mr Duncan Sinclair (who was inspector for the Corporation) that the water went over the top in waves and thus caused the breach. I have no hesitation in saying that this is utterly inconsistent with what presented itself to my own observations. I made a careful examination around, and there are none of those indications which must have appeared if such had been the case; and, furthermore, there were lying at and about the back of the wall loose boards in the same position in which they were before the rain, a thing which is utterly inconsistent with their having been exposed to a deluge of water sufficient to carry away a wall and cut a large channel. What seems the probable thing is this:- The place where the wall has been carried away is immediately in front of the spot where the contractor had cut a channel for his own use to carry off the water. The wall in this place was the last finished. The filling in with loose earth would not be so solid as the natural bank. Consequently till the concrete had set and the earth consolidated this part must be very much weaker than any other part of the dam, and as it stood at right angles to the force of the torrent I am not at all surprised that it went. What made the matter worse was the fact that the trench had not been filled up by the contractor, and there was therefore a channel for the water to run in as soon as it got over with a fall at back of about twenty feet, and it is not at all surprising that a channel was soon cut through. In reference to the cost, I may say that it is very much exaggerated; while of course engineers may spend a good deal of money, I shall be surprised if it costs as much as the smallest sum named. The concrete in the work I carefully examined, and it appears fairly good, with the exception of the coping in one place, which is utterly rotten. Mr Duncan Sinclair has expressed a decided opinion on the merits of the dam. Now those who know that gentleman will admit that, while he is no doubt capable

of giving an opinion as to how many bullocks might draw a log out of the bush, his verdict on such a work as the dam is of little value, although I believe that from his presumed knowledge of the flow of the water, the Engineer lowered the top of the dam about a foot. There has also been an opinion expressed by Councillor Petherick as to the race. Councillor Petherick holds very pronounced and perhaps valuable opinions on stray goats and horses, but I do not think that his bitterest enemy would accuse him of having sufficient training and experience in either earthwork or concrete to entitle his opinion on such points to any weight. Along the race there are one or two small places which might possibly slip, but each year lessens that probability, as in the case of the Rimutaka railway, and further, there is no other place where the race could be taken. Nor must it be supposed that because an accident has happened that due care has not been taken. The late Mr Clark was originally consulted, and also Mr Blackett at different times.

Evening Post 21 Feb 1884 The Wainui-o-mata Loan – To the Editor

Sir – Will you kindly permit me a remark and a little more on Mr S. Brown's letter addressed to you, in so far as it bears on the financial position of the loan. The public are obliged to him for a certain amount of information regarding it. He mentions an asset of which I was not aware, and so far I accept his correction unreservedly. It appears there is unused plant to the value of £3800. A note by the Treasurer stating this fact would have made his return more complete. I would, however, doubt the likelihood of the material realizing the amount indicated, but some time or other it may do so, and at all events it is money's worth. I do not see the force on Mr Brown's further statements on this subject. He speaks of a sum of £2800 spent on mains in the city, not provided for in the loan, but which, he gives the public to understand, is nevertheless, charged against it. How should that arise? All expenditure ought to be charged to its proper fund, and I can hardly think the Treasurer's usual accuracy will be at fault in this particular. As a further acknowledgment, I am sure Mr Brown will excuse me for not knowing (although he says I ought to know) that the interest on this special loan is paid out of the general rate in what he airily speaks of as "the ordinary way." So far as I do know I am led to the conclusion that the interest is paid out of this rate, not in the ordinary, but rather in some extraordinary way, because a loan for a reproductive work of this character should bear its own expenditure. If, at the outset, an advance is required for the necessary outgoings, that advance should certainly be a charge against the future income of the work in question, as I suggested in this instance. The general rate being insufficient for its own proper and legitimate purposes, ought not to be drawn upon for water supply, which, judiciously managed, should prove abundantly self-supporting. The public at present have no idea of what is doing or about to be done regarding this Wainui-o-mata business. The discussions in the Council do not enlighten us a bit. It is an important undertaking enveloped in doubt and difficulty – to use Stephen Blackpool's phrase, "all a muddle." Mr Brown would really confer a benefit upon the ratepayers if he would tell them, from his practical knowledge, what he thinks of the whole matter – specially the extent of the damage, and how the Council propose obtaining funds for its repair and for the completion of the work. I am., &c., William Hutchison.

Evening Post 01 Apr 1884 The Wainui-o-mata Waterworks – To the Editor

Sir – I think that a little application of the experience of diggers on the West Coast would suffice to save the city from the serious consequences which must result from a deficient water supply. The basin which the works at Wainui-o-mata are intended to form is not intended to be a “reservoir,” the object being merely to raise the level of the water to the height necessary for filling the pipes which are to supply the city, an object which could, unquestionably, have been attained in a much more simple manner. Pending the completion of the contract let to Mr Saunders, however, I would suggest that an ordinary digger’s race should be carried from the mouth of the pipe-line to a point in the river above, from which its waters could be led into the pipes. A comparatively small amount of earthwork in the making of a trench, where the soil is suitable, and a few thousand feet of timber to be used where unsuitable, would be all that is requisite for the above purpose. Half the crushing machinery, and a large proportion of the alluvial operations on the West Coast, are supplied by races of this kind, and there seems to be no reason why a similar work should not effect the object in view, pending the completion of the more elaborate scheme about to be carried out by Mr Saunders. I am, &c., Wm. Thos. Locke Travers. 1st March, 1884.

Evening Post 02 Apr 1884 The Water Famine

There have been great complaints to-day about the insufficiency of the water supply, on which subject we have received several letters. The principal sufferers appear to be those living on the higher levels, some of whom never get any water at all, it being all drawn off before it can reach them by those living in the lower parts of the town. The City Engineer, accompanied by some of the councillors, went out to Wainui-o-mata to-day to see if a supply cannot be derived from that source without waiting for the completion of the dam.

Evening Post 24 Apr 1884 Water Supply – To the Editor

Sir – As an old miner allow me to endorse Mr Travers’s plan of a flume from the river to the pipes, and to protest against the delay which has taken place in carrying it out. If the contractor will not allow the flume to be constructed unless he obtains some unfair advantage, there is an end of the matter. If this is not the case, then our Mayor and Councillors are much to blame. It is of course very awkward to go against the Engineer, who advises a two-foot flume. But I fancy he never saw a flume in his life. I do not know what the grade of the flume would be, but a 10 or 12 inch flume would deliver at least 300 cubic inches of water per second, perhaps more. I will not go into the calculation of the volume in gallons this would supply in 24 hours, as a trifling error would of course upset the argument, but it would be ample to give us a constant supply. The objections to a 2ft flume are many. The bottom must be of two boards, and would require pitching or caulking, or both, whereas 12-inch boards are plentiful and require no pitching. A 2ft flume would require trestle-work quite double the strength, and would be longer building. I am, &c., Another Sufferer. 23rd April.

Evening Post 25 Apr 1884 The Water Supply of the City

The most important discussion at the meeting of the City Council last night was that which had reference to the best means to be adopted for increasing the water supply of the city. The subject was introduced by the reading of a clause in the Public Works Committee’s report, stating that the City Surveyor had been instructed to ask Mr Saunders to name a price for which he would be willing to construct the flume at Wainui and maintain it till the completion of his contract. In connection with this matter, a letter was read from Mr Saunders, in reply to that sent him by Mr Loughrey, intimating that he saw no objection to the proposal to construct a flume, but would not undertake to do the work himself. He added that a flume should not cost more than £100. The Mayor explained that he had spoken to Councillors S. Brown, Danks, and other practical men, on the subject, and had ascertained that water for the lower levels of

the city could be obtained by placing a centrifugal pump in the stream near Petone. The higher levels could be supplied from the Polhill Gully reservoir. Councillor McKenzie was in favour of constructing a flume. The citizens were now suffering from a lack of water, and in some cases employers had been obliged to discharge hands because of the want of motive power. The matter was a very serious one, and should be taken into thorough consideration by the Council. The erection of a centrifugal pump might be cheaper, but he questioned whether it would act so well as a flume. One hundred pounds was not a large sum to expend for such a purpose, and so far as he could see, the construction of a flume would in no way be a hindrance to Mr Saunders' contract. He would move, therefore, "That a 2ft flume be constructed and the water brought in at once." He objected to the water being brought in from Petone because it was not so pure as that at Wainui. He had several times seen ducks and geese swimming about in the stream on which it was proposed to erect the pump. In reply to a question from Councillor Petherick, the Mayor said he did not know how high above the pipes it was proposed to place the pump. Councillor Danks – On the level of the pipes. Councillor Thompson would like to second the motion, but was afraid to do so in the face of the City Solicitor's opinion as to the liability in case of floods. He had seen Mr Saunders on this subject, and had been assured by that gentleman that he had no desire to carry out the erection of the flume. He (the speaker), however, was hopeful that some arrangement in that direction might be made with Mr Saunders, and he suggested Councillor McKenzie should amend his resolution in the direction of appointing a committee to wait upon that contractor to see what could be done. Councillor McKenzie said he had no objection to meet Councillor Thompson's views, and the resolution was altered so as to read, "That a two-feet flume be brought in, and that a committee, consisting of Councillors Danks, Thompson, Maginnity, A. W. Brown, and the mover, accompanied by the City Surveyor, be appointed to wait upon Mr Saunders." This was seconded by Councillor Thompson. An amendment was moved by the Mayor, "That the engineer be instructed to place a centrifugal pump in the stream at Petone." His Worship explained that he preferred this course because there was no possibility of involving the Council in a legal difficulty with the contractor. The amendment was seconded by Councillor Danks. Councillor Newman was in favour of bringing in the Wainui supply. His objection to the other scheme was that the pump would not supply the higher levels with water. Councillor A. W. Brown spoke to a similar effect. After further discussion the motion and amendment were put, and the latter was lost. Another amendment by Councillor Wilson, "That the engineer be instructed to ask Mr Saunders to name a sum for which he will supply Wellington with water until the completion of his contract," was not seconded.

Evening Post 29 Apr 1884 Water Supply – To the Editor

Sir – ... The two-foot flume was adopted on the report of the City Engineer, and was the only one that could be carried in the Council. Mr Saunders roughly estimated the cost of a foot flume at £100; but declined to do the work. The City Engineer estimated the erection of a two foot flume at £220, but allowed nothing for its maintenance. Mr Saunders, much against his will, as he did not want the job, offered to do it for £300, to maintain it until the completion of the dam, and to hold the Council harmless of any possible damage that may occur during the interval. The work has already been commenced, and Mr Saunders has promised to use the utmost expedition. Although 14 days have been allowed to complete the work, it is more than probable that it may be effected in a shorter time. Of this I am certain, that if Mr Saunders cannot do the work expeditiously, with his large and efficient staff of workmen, there is no other person in the place who can... My only regret is that the water was not brought in from the Wainui-o-mata two months ago, as it would have saved a large amount of inconvenience to the inhabitants, and at the same time increased the revenues of the city. I am, &c., Thomas McKenzie.

Evening Post 08 May 1884

Mr J. Saunders, contractor, of this city, is, we regret to hear, at present confined to his house through illness. It appears that he and one of his men lately drank some of the Wainui-o-mata water, and both of them were shortly afterwards taken ill. Whether the illness, however, is directly attributable to drinking Wainui-o-mata water, Dr Diver, who is attending Mr Saunders, is not in a position to state, not having analysed the water. It was anticipated that the Wainui-o-mata water would be supplied to the town tonight, but some delay has been occasioned by the bursting of one of the mains. It is hoped, however, that the water will be brought in to-morrow.

Evening Post 09 May 1884

The City Engineer reported at last night's meeting of the Council that water might be expected to reach town from Wainui-o-mata by to-morrow.

Evening Post 10 May 1884

It is expected that the water will reach town from Wainui-o-mata this evening, should no accident occur in the meantime. Mr Loughrey, City Engineer, left town early this morning to superintend the arrangements for that purpose, and the water, we understand, is being gradually let into the mains.

Evening Post 12 May 1884

The Wainui water has not yet reached the city owing to a burst in the pipes, about a mile on the other side of Ngahauranga. The accident occurred yesterday afternoon, and men are now engaged repairing the damage. Should no further accident take place there is nothing to prevent the water from coming into town by to-morrow, but it is, of course, possible that other "bursts" may occur in the meantime.

Evening Post 13 May 1884

The Wainui water has reached town at last. It came through this morning without further casualty, but had not been turned on many hours before one of the old pipes in the Adelaide-road suddenly burst, but it is not of an important character. The water is very thick and muddy at present, but will have run itself clean in the course of a couple of days.

Evening Post 14 May 1884

Owing to one or two more "bursts" in the pipes along the Hutt-road, the Wainui water has again had to be turned off to enable these to be repaired. Men were engaged on the work this morning.

Evening Post 04 Jun 1884

Owing to a burst having occurred in one of the water-pipes in the long tunnel in connection with the Wainui water supply which will take some time to get repaired the intended practice of the Fire Brigade to test the pressure, will not take place; but should everything be in order on Tuesday next, the brigade will make the test at the same hour and place.

Evening Post 11 Jun 1884

A singular mishap befell a member of the Fire Brigade named White during the progress of the trial of the Wainui-o-mata water supply yesterday. While in charge of a branch opposite the Athenaeum Buildings the hose became twisted round one of his arms, and before he could disengage the limb the water was turned on, and he was thrown to the ground with a jerk, much to his astonishment and greatly to the amusement of the spectators. Several of the latter hurried to his assistance, and he was promptly rescued from his unpleasant position in the mud.

A very satisfactory test of the pressure of the Wainui-o-mata water supply for fire extinguishing purposes was made between 4 and 5 o'clock yesterday afternoon by the members of the Fire Brigade, in the presence of a large number of people, including representatives of all the insurance companies doing business in the city. With a pressure of 145lbs to the square inch, four jets of water were sent up as far as the top of the tower on the Athenaeum Buildings. The number of branches was then increased to sixteen, and with so many jets in play the brigade were enabled to deluge the roof of the premises with water. The pressure at this time was 110lbs. The hose and hydrants were subsequently removed to the junction of Featherston and Grey streets and a test made of the pressure in that locality, the result being quite as successful as in the first instance. A dozen jets were thrown on to the roof of Messrs J. E. Nathan & Co.'s three-story warehouse, and it was apparent to those who were witnessing the display that in the event of an outbreak of fire on the premises the brigade would be able to grapple with the danger, provided of course that a prompt alarm was given. The hose used was perfectly new and no bursts occurred during the progress of the trial. The test was of the most satisfactory description and will tend to create a feeling of greater security from fire than has hitherto existed in the minds of city residents.

Report of the Surveys of New Zealand for the years 1883-1884 – Appendices to the Journal of the House of Representatives 1884 C1 p36

Wellington – triangulation... Mr J. D. Climie succeeded in covering and mapping nearly a quarter of a million of acres, completing our knowledge of the country at the sources of the Wainuiomata, Hutt, Tauherenikau, and Waiohine Rivers....

Water-Supplies for Mining and Agricultural Purposes, and Towns – Appendices to the Journal of the House of Representatives 1886 H34 p9

Wellington Water-supply. The water-supply of this city is obtained from two sources – one from the Kaiwarawara Creek and the other from the Wainuiomata. The source of the former is about two miles distant from the centre of the town, or post-office, and is 310ft above the lowest city level. The works in connection with this supply consist of a reservoir about twelve acres in extent, formed by a natural basin, in which the water is retained by the construction of a concrete weir across the stream. From this reservoir the water is conveyed, partly by a tunnel and partly by pipes, for a distance of thirty chains, into a storage or distributing reservoir, which is constructed of concrete at a height of 258ft above the lowest town level. From this reservoir the water is conveyed through the city in main-service cast-iron pipes, varying from 10in to 5in in diameter, according to the quantity of water required to be supplied in different parts of the town, and from these mains smaller pipes are used in distributing the water through the various streets. This supply was the first that was constructed; but it was found inadequate to meet the requirements of the city, and is only now used in cases where the bursting of a pipe or other exigency necessitates the shutting-off the Wainuiomata or main supply. The latter supply has its source about sixteen miles distant from the centre of the town, and has now been in use for two years and a half. The works in connection with this supply consist of a reservoir, formed by a concrete dam being constructed across the bed of the Wainuiomata River, 395ft, above the lowest level in the town, at a narrow gorge, which forms a reservoir in a natural basin of fifteen acres in extent. From this reservoir the water is conveyed in a concrete-covered race, a mile and a quarter in length, into a concrete well 63ft in depth; thence it is conveyed in cast-iron pipes 30in in diameter for three and a half miles. In this distance the pipes are carried through a tunnel fifty chains in length. For the

next eight miles and three-quarters the pipes are 24in in diameter; thence 21in in diameter for the next mile and a half, and 15in for the next twenty chains; after which the main service-pipes are 12in in diameter, to which distributing-pipes are connected, varying from 8in to 3in in diameter, to convey the water through the various streets in the city, the principal streets having two mains, which can be connected or shut off from each other, or can be supplied with water from either reservoir, as may be required. The rates charged for water are as follows: For domestic use, 5 per centum of rateable value of property if water is supplied; if water is not supplied the rate is 2½ per centum on rateable value of property; for stores and warehouses, 2½ per centum on rateable value of property; for motive-power, 4d per 1,000 gal.; for trade purposes, 1s per 1,000 gal. The cost of the first supply was £80,000 and the cost of the latter £135,000; making a total of £215,000.

Evening Post 29 Nov 1886

The Mayor, and Councillors Edwards, Richardson, Smith, and Brandon, accompanied by the City Surveyor (Mr Loughrey), returned last evening from a visit of inspection to Wainui-o-mata, the object being to obtain information as to the advisableness of securing a block of 2000 acres of land above the reservoir, so as to prevent the destruction of the timber upon it. The party left town on Saturday afternoon, and reached the reservoir after dark. Quarters for the night were provided by the man in charge of the dam. The whole of yesterday was spent in going over the land, which Mr Wakeham has offered to sell the Council, and the visitors got drenched to the skin in the course of the peregrinations. We believe the whole of the party are agreed that if the owner of the property carries out his intention of cutting the timber on the land, the flow of water into the Wainui stream will probably be diminished. Another trip has been arranged for Wednesday, to meet the convenience of those Councillors who could not go out on Saturday.

Evening Post 28 Jan 1887

With reference to the recent complaints as to the sudden stoppage of the Wainui-o-mata water supply, the City Surveyor explained, in his report to the Council last evening, that notice would have been given to householders in the usual manner as to the stoppage on Saturday last, but that the first intimation received in the city as to the burst was given by the water cutting itself off... In connection with the discussion of water supply matters at the meeting of the City Council last evening, Councillor Richardson asked whether anything had yet been done towards giving effect to the proposal made by him some months ago, as to obtaining telephonic communication between the city and the Wainui-o-mata dam. The Assistant Town Clerk said that no reply had yet been vouchsafed by Government to the Council's request that the telephone line should be extended. Councillor Petherick intimated his intention of moving, unless somebody else took the initiative, that steps be taken towards obtaining communication by telephone with the damkeeper's residence. In reply to Councillor Young, the Mayor said that no further information relative to the land in the vicinity of the Wainui dam which was recently offered for sale had yet come under his notice.

Hawera and Normanby Star 01 Mar 1887 News and Notes

The Wellington City Councillors paid an official visit to the Wainui-o-mata waterworks on Saturday and closely examined the race in which leaks were found. It is understood that fresh leaks were discovered and signs of careless workmanship. It was estimated that two million gallons of water has been lost daily for some time past by those leaks.

Daily Telegraph 29 Mar 1887

Mr Higginson, C.E., who was selected by the committee of the Wellington City Council to inspect the Wainui-o-mata waterworks, has drawn up a lengthy report which will be discussed at the next meeting of the Council. It is understood that he considers the first estimate for repairing the works far above the mark.

Evening Post 17 Jun 1887

Further correspondence from Mrs Isabella McIlvride, in reference to her claim for compensation for losses sustained owing to the passage of the waterworks through her property at Wainui-o-mata, was read at the meeting of the City Council last evening, and was referred to the Public Works Committee.

Wanganui Herald 29 Aug 1902 A Defective Reservoir

Wellington, August 29. The City Engineer's reports to the Council last night disclosed that the dam of the Wainuiomata water supply reservoir is in a condition calling for attention. The concrete is of exceedingly poor quality, and in one place where the earth embankment was temporarily removed the water finds its way freely through the concrete wall, ranging in thickness from eleven to fourteen inches.

Evening Post 19 Oct 1904 Local and General

At the Wainui-o-mata waterworks the recent rainfall was the heaviest experienced since 1895. From Tuesday night to Sunday morning the rain gauge recorded 21¼ in. For the twenty-four hours between 9 a.m. on Wednesday and 9 a.m. on Thursday 9 1-5in fell. The river was swollen to many times its usual size, and the outlet from the dam was insufficient to cope with it. By 5.30 on Thursday morning the water had risen to the top of the wall, and made an outlet for itself at the western corner. The overflow is said to have been a sight that would compare very favourably with the Huka Falls. Several slips occurred, one, about half a mile below the dam, bringing down a huge log about 40ft long and 5ft in diameter, which struck the road about a foot from the pipes, completely blocking it for vehicular traffic. At the "Old Rustic Bridge" above the dam, a favourite view for photographers, the river was within a few inches of the log, and washed it down. During the eighteen days of this month a fall of 8.90in of rain was recorded at the Colonial Observatory (Wellington). The average rainfall for the whole month of October is 3.93in.

Evening Post 21 Oct 1904 City Council

The fortnightly meeting of the Wellington City Council... The Public Works Committee recommended that... the City Engineer repair the damage at the Wainui Waterworks caused by the late storm...

Evening Post 17 Jan 1905

The annual Corporation picnic to the waterworks at Wainui-o-mata took place yesterday. Favoured by fine weather, the outing was a great success, and His Worship, Councillors, officials, and friends spent a very pleasant day at what is undoubtedly one of the most beautiful picnic resorts within reach of Wellington. As to the business part of the outing, the only serious matter to consider was the damage which recent floods have done to the overflow dam. The huge volumes of water which have come over this dam – an immense concrete structure – have worn some holes of considerable size in the side walls, one of which acts as a buttress to the pressure of water in the reservoir. Any weakening of this support is, naturally, a matter that calls for immediate attention, and it was remarked with satisfaction that the Engineer (Mr Morton) has taken remedial measures of a most complete description without delay. The main wall of the dam, which shows some leakage, and the side walls, are already being repaired, and it is anticipated that the present spell of fine weather will enable the work to be carried out without the slightest interruption. While expressing great satisfaction with the prompt measures taken by the Engineer to remedy the defect, Councillors marveled at the revelation it afforded of the class of material employed in the construction of the dam. Some of the material, supposed to be pure concrete, could be crumbled between the fingers, and one could only wonder that the scouring of the overflow had not done a greater amount of damage.

Evening Post 25 Jan 1905

The city engineer has laid a scheme before the council for improving the water supply at a cost not yet made public, but estimated at £150,000 to £200,000. This is due to the enlargement of the city boundaries and the taking in of populations at considerable heights on the hills. He proposes new reservoirs at Wainuiomata and Karori, to hold 150,000,000 gal., which, with the present storage, will provide a population of 75,000 with 60 gal per head per day for 144 days. For the high districts pumping stations are to be provided. A number of new mains of various sizes are proposed, running out as far as Island Bay.

Evening Post 29 Aug 1905 The Municipal By-Election – Mr Noot at Victoria Hall

... Mr Noot stated that a labour representative seeking office on the City Council had no axe to grind. He strongly supported the extension of the Parliamentary franchise to the election of every local body, and the carrying out of public works by day labour. As compared with the contract system, day labour was cheaper and better work, and at the same time did not sweat the worker. As an instance of good results from day labour, he mentioned the fire brigade tower, for which the lowest tender was over £300, and which was done by day labour for £209. The Wainuiomata wall was built by contract, and during the last few years it had cost the Council £600 for repairs through bad workmanship....

Evening Post 09 Nov 1905

The City Engineer is now busily engaged upon the plans and specifications for the extension of the water-storage area at Karori. Mr Morton is well pleased with the prospects at Karori, where a greater quantity of water has been running to waste since March last than has been conserved. Mr Morton recently visited the Wainuiomata reservoir to inspect the repairing work that was carried out some months ago to stop the leakage that had been going on through breakages in the banks. The walls of the reservoir were found to be in excellent condition.

Wanganui Herald 11 May 1907 Very Heavy Rain at Wellington

Wellington, May 10. There has been a heavy rainfall during the past 24 hours, the total registered being 1.64 inches. A slight accident occurred at the tunnel where some men were engaged repairing the Wainuiomata water supply, the rain causing a further fall of earth. Three workmen had narrow escapes, all being slightly injured. The rain caused a slight flood at Island Bay, the tram traffic being stopped.

Evening Post 04 Mar 1908 The Water Supply – Official Visit to Wainui – Reservoir Full Once More

The City Council, accompanied by the leading officials, made their annual visit of inspection to Wainuiomata reservoir yesterday. The drive out was highly enjoyable, and the walk up Wainui hill was at least beneficial. It was a brown, parched prospect by the way – a result of the long drought – and across the dividing range wide stretches of burnt bush show where the Day's Bay and Gollan's Valley fires have travelled across the hills. One oasis showed in the scorched Hutt Valley. This was the place known as Ward's paddock; a spot which was constantly before the public and Parliament some two years ago because of the harassing operation upon it of the unimproved value of rating adopted by the controlling municipal body. Nowadays the paddock is a market garden, run by a syndicate of Chinese, and the use of artesian wells has kept it fairly green and fruitful. Exactly thirteen Chinamen were leaning curiously on their hoes as the municipal party drove past. As the party drove up the Wainui Valley the shrunken creek below the reservoir made a cheerless sight for the city councilors, but half a mile from their destination they were cheered by a well-sustained rainfall that continued well into the afternoon. The inspection of the artificial work at the reservoir disclosed a necessity for some slight repairs to the concrete dam, which is showing some slight signs of its twenty-five years' wear, but all in all the inspection showed satisfactory results, and the generous rains have resulted in rapid rise of the water. Last Saturday there was a drop of nearly four feet from the crest of the overflow wall, but at mid-day yesterday, the water was within fifteen inches of the wall top, giving surety that by today there would be an overflow, and an end to the spectre of water famine that has haunted the citizens for many weeks of this year.

Evening Post 28 Jan 1916 Local and General

An exchange of land in the Wainui-o-mata water catchment area is to be effected by the City Council in terms recommended by the City Valuer; and certain blocks of land required to complete the acquisition of the whole of the watershed at Wainui-o-mata are to be surveyed and taken under the Public Works Act, as the Corporation has no land to exchange for them.

Evening Post 20 Apr 1917 Local and General

An offer, in terms of the value submitted by the City Valuer, is to be made for the settlement of a claim for land taken by the City Council for waterworks purposes at the Wainui-o-mata catchment area.

Evening Post 12 Jun 1918 Local and General

With the acquisition of another 25 acres of land (owned by Mr Charles E. Swanson) the securing of the whole of the Wainui-o-mata watershed will have been completed. Mr W. G. Riddell, S.M., sitting with Messrs M. W. Welch and H. E. Leighton as assessors, as a Compensation Court, on Monday, went into the merits of the value of certain recently-secured land on the ridge of the Rimutaka Range, and within the Wainui waterworks catchment area. The owner, Andrew Gorrie, put in a claim for £5 per acre for the 58¼ acres taken by the Wellington City Corporation, for which the City Valuer (Mr James Ames) for the Corporation had offered the lump sum of £105. After taking evidence the Court awarded the owner £170 for the land taken, the City Corporation to pay costs. Mr A. de B. Brandon appeared for the owner and Mr John O'Shea (City Solicitor) for the Corporation.

Evening Post 24 Aug 1919 Poachers and Penalties

Four men were charged at the Lower Hutt Court with [1] taking indigenous birds, to wit, 27 pigeons and 1 tui; [2] trespassing on private lands (the Wellington Corporation Waterworks Reserve of Wainui-o-mata) in pursuit of native game; [3] obstructing a ranger in the execution of his duty. The cases were heard by a Bench of three Justices; all four men pleaded guilty to all the charges, were convicted, and fined £5 each on No.1, and convicted and discharged on Nos 2 and 3. Here, again, the Bench completely failed to realise the gravity of the offences. Native pigeons and tuis are protected absolutely throughout the Dominion, and recently three men were charged before a Magistrate at Raetihi with taking pigeons, convicted, and fined £15, £10 and £5. The last-mentioned penalty was reduced to the minimum because the man was a returned soldier. The obstruction of the ranger consisted in the refusal to give names and addresses when requested by the ranger after production of his warrant. As the men were miles away from anywhere, and the ranger was alone and a stranger to all of the men, the refusal meant immunity from prosecution. The ranger, however, seized two pea-rifles and the fore-end of a gun, in addition to the tui and several pigeons. After several weeks of systematic work, and an expenditure of some £10, four men out of several were traced and identified. This offence was a serious one, and should have been severely penalized, but the Bench merely convicted the men, and refused to allow any costs except 15s for one witness.

Evening Post 20 Jan 1919 A Trip to Wainui

This afternoon members of the French Mission are the guests of the Mayor (Mr J. P. Luke) and the City Council on a motor trip to the city waterworks at Wainui-o-mata.

Evening Post 29 Aug 1919 Local and General

An inquiry made by Mr J. P. Luke in the House of Representatives yesterday was whether the Minister of Public Works would give an undertaking that any railway line in connection with any proposed deviation of the Wairarapa line should not pass over the council watershed at Wainui-o-mata.

Evening Post 04 Nov 1922 Local and General

Authority has been given by the City Council for the purchase of 153½ acres of land at Wainui-o-mata for waterworks purposes.

Evening Post 23 May 1924 Local and General

Proposals made by the Wellington Acclimatisation Society for thinning out deer at the Wainui-o-mata waterworks reserve are to be considered by the City Council's Finance Committee. When the matter was mentioned at last night's meeting of the City Council the question arose as to how the carcasses of the deer were to be disposed of. The Mayor thought they should be burnt, but Councillor G. Mitchell facetiously suggested that they might be turned in "pork sausages."

Evening Post 03 Feb 1925 Motor-Cycling

The Ideal Motor-cycle and Gipsy Club conducted another pleasant outing during the week-end. A large party of friends accompanied members of the club to the Wainui Reservoir, where a most enjoyable day was spent. Tramping, swimming, and various games were indulged in during the stay at Wainui. The club was very active during Christmas and New Year holidays, runs being made to Muritai beach, Kaitoke, Black Bridge, and Otaki. The trip was under the control of Messrs F. Waterworth and R. A. Williamson. Members of the club decided that the next run should be to Waikanae.

Evening Post 12 Jun 1928 Two Men Missing

On Sunday morning three young married men, Jack Burns, Mervyn Hodgkinson, and Clarence Poynter, left Petone on a shooting expedition at the back of the Wainui reservoir. During the day Burns followed his dog down a gully after a goat, which he secured. When he came back his two mates had disappeared. After searching for them for some time he returned home under the impression that they were ahead of him, but found that they were not. Since then nothing has been seen of them. It is understood that the young men had neither food nor matches, and were not equipped for bad weather. Poynter, however, is well acquainted with the country, having traversed it many times in the last eight years. Constable Macnamara and Burns were out searching all day yesterday, but according to a telephone message received this morning had found nothing. Three more parties have set out to try and locate the missing men.