

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 827

Press
Mis.

Dated

11-4-

1866.

Not to be folded or roughly handled

ms

827

4

*Proceedings of the Madras Government, Revenue Department,
11th April 1866.*

No. 107. Read the following Proceedings of the Madras Government in the
Public Works Department:—

Passing orders on a Report from the Superintend-
ing Engineer, 8th Division, relating to a scheme
of diverting the water of Perryaur into the
Madura country } (Here enter 22nd March 1863, No. 921.)

No. 108.

ORDER THEREON, 11th April 1866, No. 827.

Miscellaneous.

Ordered to be recorded.

(True Extract.)

(Signed) J. GROSE,

Acting Under Secretary to Government.

Exd. S. T. Augustin.

*Proceedings of the Madras Government, Public Works Department,
22nd March 1866.*

No. 463. Read the following letter from the Officiating Superintending Engineer, 8th Division, to the Secretary to Government, Department Public Works, dated Madura, 2nd March 1866, No. 2,375 :—

Referring to G. O. No. 3,596 of the 28th November 1865, I have the honor to forward copy of a report from

1 Letter.
1 Sketch Plan.

Captain Payne on the Perryaur project, with sketch plan showing a section taken

from the Perryaur river to the Cumbum valley ridge.

2. Captain Payne is of opinion that the scheme of diverting the Perryaur water into the Madura country is quite practicable; but that the manner in which that diversion may be best effected cannot be decided until the whole of the country has been thoroughly reconnoitred and contoured. He finds, as the result of his levels, a rise of 186 feet from the bed of the Perryaur to the crest of the water-shed, in a distance of about $3\frac{1}{2}$ miles. This result agrees very nearly with that obtained by Mr. Barton, who states in paragraph 4*

* Vide G. O. No. 1,337 of 17th May 1865. of his letter to the Resident of Travancore, that by the Barometer he made the crest of the gorge 180 feet above the bed of the Perryaur. Captain Ryves in his letter of 4th March 1862 gives the difference of level at about 140 feet, as taken by Aneroid observations, but he does not specify clearly the point from which he takes his levels; and Captain Payne's figures are certainly the most to be depended on, as he is the only one who has taken a section with a levelling instrument. As to the volume of water in the Perryaur, Captain Payne calculates a discharge per hour of about 19,000 cubic yards; Captain Ryves in his letter of 4th March 1862, considers that the available supply from January to March would decrease to 50, 40, or even 30,000 cubic yards; but it is to be observed, that this has been a season of unusual drought: there has been a total failure of the north-east monsoon, and it is thus easy to reconcile the discrepancy as to the probable annual supply of water. Captain Payne having taken his levels up the beds of the Chinna Mooliar and Soorooliar rivers, finds that the water had cut its way down to the hard rock, so that there is little doubt but that a deep cutting at the ridge would involve an immense amount of labor and expense; he is, therefore, of opinion that the simplest plan of carrying out the scheme would be by damming up the Perryaur river entirely to such a height that the cutting through the ridge should be limited to a depth of 40 feet.

3. Further calculations would be necessary to ascertain the volume of the Perryaur when in full flood, estimated by Captain Ryves at 100 to 120,000 cubic yards per hour; and whether the whole river might, without danger, be turned into the Madura District, or how the surplus might be turned off. Captain Payne proposes that he should carry on the investigation of the project early in June, when the hills are considered free from fever; and I would recommend that the Government should sanction this proceeding.

4. The only report adverse to the project is that of the late Sir J. Caldwell, who writes of a mountain drain so abrupt in descent upon continued bed of rock, that in all points it must be classed a rapid, but then he admits that before he had

*Proceedings of the Madras Government, Public Works Department,
22nd March 1866.*

proceeded 400 yards he condemned the project; in all probability therefore, that Officer had not conceived a scheme at all approaching in magnitude that which is now under consideration.

* Savings from Estimates.

5. I beg to submit for the sanction of Government from the allotment* for Minor New Works a bill of Rupees 18, for expenses unavoidably incurred by Captain Payne, on his late survey duty; an application for authority to incur such expense ought properly to have been previously obtained, but Captain Payne experienced a difficulty which he did not anticipate, inasmuch as he could not burn down the grass, and owing to its density and that of the jungle generally he required more assistance than could be afforded by his own small establishment of Lascars.

† No. 83.

6. Lieutenant-Colonel Ouchterlony, in addressing † Government on the 27th August 1862, recommended a grant of Rupees 800 from the Reserve, for the investigation of this project; charges of this nature cannot be accurately defined beforehand, but I beg to submit an approximate rough estimate, calculated from the expenses now incurred, of Rupees 500, for sanction from next year's Reserve, if the Government think fit to order the prosecution of the scheme.

From the Executive Engineer on special duty, 8th Division, to the Superintending Engineer, 8th Division, dated Madura, 19th February 1866, No. 7.

1. With reference to Government Orders as per margin, I have the honor to inform you that from the 15th to 25th of last month I was in camp, at the Mooliar Tavalam, and engaged in taking a series of levels from the Perryaur river

G. O. No. 1,337, 17th May 1865.
Do. " 3,596, 18th November 1865.

to the lowest point of the water-shed dividing the Madura District from the Province of Travancore.

2. The north-east monsoon having been almost a failure, I anticipated but little difficulty about burning the grass, which at this season usually attains its greatest length and thickness. But in this I was disappointed, for I found it still too green to burn.

3. I had taken a spirit and water level with me, and seeing that it would be almost impossible, owing to the density of the grass and jungle, to work with the former, I determined to take the section with the water level; an instrument well adapted for the purpose, owing to the short sights obtainable, and to the rough nature of the country to be traversed.

4. The accompanying section shows the result of the levels, viz., first a rise of 23.20 feet from the bed of the Perryaur to the bed of the Chinna Mooliar, close to its junction with the Perrya Mooliar; secondly a rise of 131.55 feet from the bed of the Perryaur to the bed of the Chinna Mooliar, at the site of Colonel Faber's Anicut; * and a total difference of level from the bed of the Perryaur to the crest of the water-shed of 186.05 feet, the distance between the two points being about 3½ miles.

5. In consequence of the long drought, the Perryaur had but a small quantity of water passing down it (by calculation about 17,280 cubic yards per hour). The Perrya Mooliar stream

* In the month of May 1864, the discharge of the Perryaur below its junction with the Perrya Mooliar was observed to be 22,603 cubic yards per hour, contributed some 1,780 cubic yards more, giving a total discharge per hour of 19,063* cubic yards.

6. The scarcity of water, and general appearance of the jungle indicating the near approach of the unhealthy season, and the long grass preventing any proper survey of the country being

*Proceedings of the Madras Government, Public Works Department,
22nd March 1866.*

taken, I considered it useless to remain longer on the hills than was necessary to enable me to determine the difference of level, on which point the question of prosecuting or abandoning the project of turning the Perryaur water into the Madura District, appears to rest.

7. And as the result shows that the water-shed is only 186 feet above the bed of the Perryaur, Captain Ryves' scheme of diverting the water appears quite practicable, although how that diversion can be most economically effected is still a question that cannot be decided hastily, and before the whole of the country about has been thoroughly reconnoitred and contoured.

8. From the knowledge I have gained so far of the country, it would seem that perhaps the simplest way of carrying out the scheme, would be by damming up the Perryaur entirely, forming an extensive lake and draining the upper portion of the latter, by a cutting through the ridge, which at its deepest point could not, I consider, be carried economically below forty feet. My levels were taken (with an exception here and there) up the beds of the Chinna Mooliar and Sarvayalaur streams, where the water had cut its way down to the hard rock, so that it is pretty certain that a deep cutting would entail an immense amount of labor and expense in blasting through solid rock.

9. This plan would probably be subject to modification, when the volume of the Perryaur when in full flood, has been correctly ascertained, that is to say, it would not apparently be prudent to turn the whole of the river into the Madura District, otherwise the results might be disastrous, for judging from marks on trees, &c., on its banks, the river when in flood rises some twenty or twenty-five feet, and comes down like a mountain torrent.

10. The ordinary † stream, therefore, when the river is under the influence of the monsoons, is all that it would seem desirable to divert for irrigational purposes. An examination of the country may show that the surplus can be turned over a masonry dam, constructed on one of the spurs of the hills to the north or south of the river.

11. I would propose that the further investigation of the project be taken up about the beginning of next June, from which date the south-west monsoon usually sets in, and the hills are considered free from fever. Meanwhile, the long grass will have been burnt and the work of leveling and surveying thus rendered less difficult.

No. 464.

ORDER THEREON, 22nd March 1866, No. 921.

CIVIL WORKS, No. 56.

1. The Government have given the reports above read their fullest consideration, and are of opinion that any plan which may be devised for diverting the waters of the Perryaur into the Madura country is well deserving of attention, and ought to be carefully matured and reported on in full detail. They approve of Captain Payne being authorized to further prosecute his investigation of the project in June next, and the Superintending Engineer will apply after the 1st May for the grant of Rupees 500 required for the purpose.

2. Captain Prendergast is competent to deal with the bill of Rupees 18 submitted by him under paragraph 8, Clause 1, Chapter IV. of the Code.
(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 8th Division.
" Controller of Public Works Accounts.
" Revenue Department,
" Board of Revenue.
Exd. S. T. Augustin.

[Handwritten signature: Charles A. Orr]
[Handwritten signature: Secretary to Government]

July 8/08

Per 1866. O. M. M. M.
L. M. M. M. M. M. M.
Proceedings of the
M. M. M. M. M. M. M.
the M. M. M. M. M. M. M.

March 22. 2. March 1/68
March 3. 1. M. M. M.

1/11
8. 921

Order order.

in a report from
the M. M. M. M. M. M. M.
relating to the M. M. M. M. M.
of M. M. M. M. M. M. M.
M. M. M. M. M. M. M.

RECORDED.

1/11

March 1/08

1/11

1/11

1/11