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# MADRAS RECORD OFFICE.

## Government of Madras.

*Public Works* DEPARTMENT.

|                 |                         |
|-----------------|-------------------------|
| G.O. No. 1629   | Press<br><del>Ms.</del> |
| 85-86           |                         |
| Dated 3-6-1864. |                         |

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,  
3rd June 1864.*

No. 85. Read the following Proceedings of the Madras Government in the Revenue Department:—

Passing orders on the letter from the Consulting Engineer Irrigation and Canal Company, forwarding, with his opinion, certain communications from the Chief Engineer and Agent relating to the question of submerged land in Kurnool. (Here enter 26th May 1864, No. 898.)

No. 86. ORDER THEREON, 3rd June 1864, No. 1,629.  
Communicated to the Consulting Engineer Madras Irrigation and Canal Company.  
(True Extract.)  
(Signed) CHARLES A. ORR, Colonel, R. E.,  
Secretary to Government.

To the Consulting Engineer for Irrigation and Canal Company with eight enclosures.  
„ Agent for do. do.

Exd S. T. Augustin.

MINUTE BY THE HONORABLE E. MALTBY.

1. As the President and the Honorable Mr. Pycroft consider that under the circumstances in which the Government is placed, it is advisable to accede to the compromise proposed by the Company's Chief Engineer, Colonel Cotton, I will not raise objection to this course, but I feel bound to explain my reasons for assenting to such a sacrifice, and to record my opinion that the claim of the Company to be permitted to submerge any quantity of land in making their Canal without paying for it, is unsustainable.

2. There can, it appears to me, be no question that the Canal from the Toombuddra to the sea which the Company was allowed to construct, was to be a Canal in the true sense of the term, and not a series of broad lakes or tanks by which large areas of land would be submerged, and the communications of the country interrupted. It was on this understanding that land was to be given to the Company for the Canal, and that this Government allowed work to be commenced, on the application of the Company's servants, before regular Plans and Estimates were completed (No. 745, 13th April 1860). Government ordered that as a preliminary measure the land required for the Canal should be staked out for the purpose of its being made over to the Company's Engineer, and arrangements were also directed to be made to ensure to the villagers in the neighbourhood sufficient means for crossing the Canal. I do not however find that the Consulting Engineer, Captain (Lieutenant-Colonel) Rundall has paid due attention to these instructions.

3. The Company appear to rest their claim on the arguments that they were to be supplied with the land required for the Canal, and that they were bound to construct the Canal in the cheapest manner. The reply is that the Canal was intended to be a Canal in the real sense of the word, and that such a Canal as the Company's Engineer planned did not comply with the conditions that neither life nor property were to be endangered by it. It is shown that that portion of the line which comprises the 2nd to the 5th Section will not merely endanger but actually submerge land valued at three lacs of Rupees, and there must moreover be considerable risk to the country under the Canal when a strong wind drives a large expanse of water against a single embankment. It may further be remarked that paragraph 7 of the Company's indenture clearly implies a Canal with banks, and that the present Consulting Engineer does not consider that the cheapest plan has been fixed on by the Company's Engineer or that the proposed submersion of these extensive tracts forms any necessary part of the scheme.

4. Government heard nothing of a Canal with a single embankment, until it was found necessary in consequence of an error about levels to carry the head of the Canal from Kurnool to Soonkasala 18 miles higher up the Toombuddra where a new Anicut was built. This change of head involved an *entirely new* line of Canal from Soonkasala to the Hindri river at Kurnool. To facilitate the construction of this new line thus suddenly found necessary, the Government sanctioned the Canal being made on the single bank principle across one or two vallies where no land of much value would be submerged.

5. Afterwards Lieutenant-Colonel Rundall forwarded with his recommendation Plans for continuing the Canal eastward of Kurnool from the 18th to the 43rd mile. It does not appear that the land had been previously staked out or that the Collector of the District had been consulted, but Lieutenant-Colonel Rundall remarked, "For nearly the whole of this distance the Canal runs along the steep slope of the country, and is carried with a single embankment except at those spots where it is taken across short projecting spurs or where a double embankment is absolutely necessary. It thus presents the appearance of a series of tanks connected by short cuts, its course therefore is much less direct and consequently its length is considerably increased. The Chief Engineer states that he preferred carrying the Canal with these detours to adopting a more direct course as thereby nearly all rock cutting is avoided, &c."

On receiving this report Government called on the Consulting Engineer to consider and report what would be the effect of extending a surface of water over so large an area. They remarked that the loss by evaporation and soakage must be very great, and that much cultivable land would be submerged.

Order of 31st May 1861, No. 1,016.

Order of 16th November 1861, No. 2,131.

6. Lieutenant-Colonel Rundall in reply repeated his recommendation of the Chief Engineer's plans, and stated that owing to the rocky soil the loss by seepage would be inappreciable, and that the land to be submerged was "for the most part unfit for cultivation," and small in extent compared with that which would be brought under the influence of irrigation. On this assurance Government sanctioned the plans provisionally, remarking that no report had been forwarded on these works from the Collector or District Engineer "whose opinion especially on the probable effect of the Canal, as now designed, on existing sources of irrigation and Government lands is essential." The Order therefore added, "Those Officers will now be requested to report to Government on the subject without delay, and the sanction now granted is subject to any orders which Government may pass on their reports."

Order, of 31st December 1861, No. 2,362.

The necessity for issuing the above order was the more surprising as in the preceding April Government had approved a scheme, proposed on their instructions by the Consulting Engineer, for keeping the District Engineer informed of the exact sites and nature of projected works. Government looked to the District Engineer both to protect existing works from interference and injury, and also to see that proper measures were taken for enabling the villagers and their cattle to cross the Canal.

Order of 9th April 1861, No. 714.

7. Before these reports were received the Agent of the Company applied that the lands required for the 2nd and 3rd portions of the Canal might be given over, and in ignorance apparently of how the case stood, Lieutenant-Colonel Horsley, who had just become Secretary to Government in the Department Public Works, obtained an order for the purpose. Before however this order reached Kurnool it was revoked by one issued on the 21st January in consequence of telegraphic information from the Collector of Kurnool that the lands to be submerged were of much value. Afterwards on receiving the reports of the Collector and District Engineer, and learning that the lands to be submerged in these two portions of the line were worth Rupees 62,500, Government directed that the whole question of these lands should be re-considered, and that the Consulting Engineer should report on a bridge and a sluice which the District Engineer pronounced necessary if the Canal was made in the manner proposed.

8. After receiving further reports and explanation the Government remarked, "It is evident that the Company cannot claim to be furnished with land by the Government when their Engineer chooses to adopt a mode of construction not absolutely required and prefers inundating a valley by damming up its outlet rather than carrying the Canal across it by an aqueduct." It was therefore decided that only so much land should be furnished by Government as would be required for the construction of the Canal with double embankments and that any land required beyond this must be paid for by the Company. To prevent delay the Chief Engineer was allowed to proceed with his plan, but on the understanding that the submerged land was to be paid for by the Company.

Order of 17th March 1862, No. 452.

9. Subsequently sanction was given for executing the 4th and 5th portions of the Canal (from 41st to 72nd mile) with a similar stipulation as to the lands which would be submerged.

10. Finally, the present Consulting Engineer, Colonel (now Major-General) Ludlow, pointed out in his general Report of 20th October 1862, the expensiveness of a Canal on the single bank system, if it was made sufficiently strong to stand the wash of waves when a strong wind blew across a broad water-spread. He added that retretments would be "essentially necessary" for the safety of the bank, but that he could not find any provision for this purpose in the Estimates. He also commented on the injury done to the people by the submersion of much valuable land, without any adequately compensating advantage being gained by this mode of constructing the Canal. Government concurred in this view, and repeating their decision that they were only

called on to furnish such land as was required for an ordinary Canal with two banks, remarked, "looking both to the safety of the works and of the people who may live below the banks, the Governor in Order of 19th December 1862, No. 2,045.

"Council is of opinion that the Company's Engineer should be requested to arrange his plans for the whole of the sections of the work not commenced so as to retain the water of the Canal between two banks, providing of course for the drainage of that part of the country which is below the surface water of the Canal."

11. Such is a brief outline of this question, and I see nothing in the present papers to alter my opinion that the Government is not called on to pay for the tracts of land which the Company may wish to submerge by constructing their Canal on the peculiar single bank system. I consider that the Government undertook only to furnish such land as was required for an ordinary double-bank Canal and for the necessary "Warehouses, Offices, and other conveniences," and I am further of opinion that the Company can claim no right to construct a Canal on the single bank plan, because it appears the cheapest plan as far as their own interests are concerned, when by adopting this course they destroy by submersion much valuable land and endanger life and property below the single embankment. This last consideration is no hypothetical one, as the recent destruction of the Canal between Soonkasala and the Hindri has proved the danger. On that occasion the principal breach occurred at a spot where a large body of water had been spread over the surface of the ground to enable a valley to be crossed on the single bank plan, and but for the fortunate proximity of the Toombudra, into which the water escaped, disastrous consequences must have occurred to the people in the vicinity. In future, therefore, I would only allow the single bank plan to be adopted in exceptional cases and under very careful precautions.

12. In assenting under these circumstances to the compromise proposed by the Chief Engineer, I am consequently influenced not by any idea that the Company ought to escape paying for the lands which they submerge, but by the arguments of Major-General Ludlow, who shows in paragraph 13 of his letter that the single bank system is so dangerous and so prejudicial to the public interests that it is advisable for Government to make a sacrifice for the purpose of inducing the Company not to act generally on the permission which they received to construct their Canal, in the 2nd, 3rd, 4th and 5th portions on the single bank plan, subject to the condition that the Company was to pay for the tracts of land which they thereby submerged.

13. This permission was given reluctantly and for the purpose of avoiding any appearance of causing delay to the Company's operations. The Government mistrusted the single bank plan, but were assured by their Consulting Engineer, Lieutenant-Colonel Rundall, that it would not be found open to objection, and are now advised, rightly I believe, to submit to a large pecuniary sacrifice to induce the Company to make this portion of their Canal on a sounder and safer principle. This arrangement will of course be made, as observed by the President, on the distinct understanding that the Government will not for the future assent to any plan which involves the submersion of lands to lessen engineering difficulties.

\* In paragraph 15 Major-General Ludlow gives Rupees 1,15,300 as the value of the submerged lands regarding which Government is to relieve the Company.

14. In conclusion I must express regret that notwithstanding past experience, Lieutenant-Colonel Rundall should have still failed to appreciate correctly his position as Consulting Engineer. In that capacity it was eminently his duty to obtain correct information by personal inspection and communication with the local authorities regarding the Company's project, so as to be able to advise the Government on all points which affected its interests, or the convenience and welfare of the people along the line of the Canal. The papers connected with this question show however that he has continued to make himself the mouth-piece of the Irrigation Company.

In his letter of 21st May 1861, No. 6, he entered in Class A without any application for instructions, those lands which were to be submerged, thus leading the Company's servants to think that Government was to pay for all these lands as a matter of course. His letter also of 11th November 1861, No. 60, laying before Government plans for the 2nd and 3rd portions of the line was so much an echo of the Chief Engineer's views that Government had to call for the opinions of its local Officers, the Collector and District Engineer. The result of such lax attention to the public interests has been that the Kurnool Collector felt it his duty to telegraph

Government on learning that permission had been sought to submerge much valuable land on the plea that it was "for the most part unfit for cultivation," and that Government has not to make a large sacrifice to undo the effects of a permission which they were led to grant on Lieutenant-Colonel Rundall's assurances. As that Officer is no longer the adviser of Government, I need not continue these remarks, but I have alluded to the subject to show the importance of always placing the office of Consulting Engineer in safe and experienced hands.

22nd April 1864.

(Signed) E. MALTBY.

(True Copy.)

*E. Maltby*  
Secretary to Government.

1629.7  
Communicated to  
the Consulting Engineer Master  
Irrigation and Canal Company

Prepared  
3 June 1864

*W. B.*

To The Consulting Engineer with  
8 Enclosures.

Agent — do — do —

882 Chief of the Line

With an Order.

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22nd April 1864.

(Signed) E. I.

as letter to the  
Sept. 1859 of 1864

1864 Dep't  
Pro. of Govt. for the  
No 2413

Pro. of Govt. in the  
Revenue Dept.

Dated 26 May  
Received 31

EG No 898.

Copying orders on  
the letter from the Comd'g Eng  
Hble forwarding, with his  
opinion, certain commu-  
nications from the Chief  
Engs & others relating to  
the question of submerging  
land in the  
A 1829-732  
With an Order.

7285-86