M.R.O. 1—77,006—8-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 946, 947	2990	Press / Mis.
Dated	17. 12.	1892.

Not to be folded or roughly handled

No. 346. Read the following endorsement of the Acting Chief Engineer for Irrigation, dated Fort St. George, 28th November 1872, No. 58:—

From the Acting Manager of the Madras Irrigation and Canal Company, to the Acting Chief Engineer for Irrigation, dated Madras, 13th September 1872, No. 226.

I HAVE the honour to hand you at the request of the Chief Engineer copy of a letter which that Officer has drawn up for communication to the Government, commenting upon the reports with reference to the reservoir sites upon which G.O., No. 1,508, of 19th June 1872, was passed.

From the Chief Engineer, to the Acting Manager of the Madras Irrigation and Canal Company, dated Kurnool, 9th September 1872.

Reservoir Plans.

I HAVE the honour to ask you to communicate to Government the following remarks on the subject of their Order No. 1,508 of 19th June last.

2. Captain Jarrett's letter* is a plain and practical one. He shows how (paragraph 3) the proposed site for a tank at Moodaba has been so selected as to avoid interference with any of the operations of the Conservancy Department; how (paragraph 4) future planting operations, if extended up the river, would be as conveniently executed with the tank there as without it, while if the tank exist the culture of the trees can be facilitated by irrigation without loss to the Company.

* From Captain H. C. Jarrett, Deputy Conservator of Forests, Nuggur Division, to the Conservator of Forests, Mysore and Coorg, dated Shemogah, 20th March 1872, No. 640.

3. As regards Luckwally dam, his paragraphs 5, 6, and 7, I need make no remark, except that I have not recommended the Company to execute it, and I do not suppose it will be executed if the other site be available.

4. I trust that the experiment of floating logs down to Bellary may succeed and lead to a diminution of the demand on the over-taxed forests of this (Kurnool) district. A dam, such as is proposed by the Company at Moodaba, would probably facilitate timber traffic by maintaining a flow of water in the river below it, while the Company could be called upon to provide a water-shoot or slide for passing timber over the dam.

5. A more gloomy and conjectural view of the result of the introduction of water is expressed by the Conservator* himself. The additional information he contributes is contained in his paragraphs 5, 6, and 7, and, in my opinion, if not clearly, unsound, is insufficiently established.

* From the Conservator of Forests, Mysore and Coorg, to the Secretary to the Commissioner of Mysore, Public Works Department, dated Bangalore, 27th March 1872, No. 2,571.

6. He first objects that a dam would "render communication between different points of our forests impracticable in many parts and difficult in all." This is, I hope, an exaggerated assertion. I do not see how to answer it, because I do not see any facts on which it rests, nor any reasoning which can lead up to it. Is it the reservoir or lake itself which will be an impediment to the floating of timber? Or will the pouring of the water from the reservoir down the river below it prevent the floating of logs therein? The fact would be that both the reservoir and the supply poured from it would afford very valuable improvement to the chief communication by water, and I do not know that it would interrupt any communications of importance.

7. That the Conservator's information is not of a kind to overweigh the conclusions of men who have dispassionately and labouriously investigated the facts, and considered the balance of good and evil results of a reservoir and of irrigation in a country like India, the next item in it shows. He says:—"The whole district, which is already unhealthy, will become far more so when it is liable to be flooded during the monsoon, and in the hot season great extent of swamp and morass will be sending up deadly exhalations and miasmas." I contend that an unsupported assertion, so con-

demnatory, if correct, would not be inserted in a letter on so important a subject by any one who realized that importance, and the expense and pains already taken to bring a beneficial scheme to a practical issue. Can the Conservator instance any district rendered unhealthy by a large reservoir, or by any reservoir, in use for storage and irrigation? Can he not instance numbers of tanks the margins of which are favourite places for camping or building, and notoriously healthy, especially in the hot weather. I cannot guess where he expects the swamps to be in the hot weather. Any which exist round the tank must be on its margin when filled by the monsoon, for no vegetation can exist in the bed of the tank where, submerged annually for some months under deep water, but few water weeds can exist on this margin, where they would be left dry in the hot season.

8. In conclusion, I have only to notice the letter of the Assistant Secretary to the Chief Commissioner of Mysore. In reference to paragraph 2 of that letter I should mention that the scheme includes an allowance of water for local use in the Mysore Province. It seems quite reasonable and fair that the reservoir should be made beneficial to the people immediately concerned; nor do I see any serious difficulty, existing or likely to arise, to this being accomplished. The effect of the tank could not fail to be to improve the healthiness of the immediate neighbourhood. The Company have no intention of constructing reservoirs which will not pay. I am astonished to learn that the Mauri Cunawai scheme, which is on the site of a different scheme investigated and abandoned by the Company, is turning out so ill-omened as to discourage any future extension of reservoir irrigation, even on the most favourable sites in Mysore. The Company's plans submitted by me have been based upon careful examination and experience, and I still have full confidence in them. In saying this I must notice that the plans of Mr. Gordon must not be taken to be final in the details of construction and arrangement shown on them. They are sufficiently definite for their purpose, but are not working drawings.

No. 190-F., of 10th April last, to the Secretary to the Government of Madras in the Public Works Department.

9. If we take Lieutenant-Colonel Sankey's remarks one by one, their force seems to me to bear against, not for, his conclusion. He observes (paragraph 5 of letter under remark) that the the Mauri Cunawai Tank has "every advantage of site," but I am of opinion that the site was justly condemned by the Company's Engineers for reasons which do not apply to Moodaba and Mudduck sites. Again, I consider that a vigorous prosecution of a large work, with all the benefit of first class staff and plant which can then be obtained, may prove more efficient and economical than the somewhat desultory operations on the Mauri Cunawai. Again, in the latter scheme a channel system for utilizing the water has to be made; in the Company's schemes all this expense is saved. I cannot conceive what *advantage* there is in having to make the distributing channels. The Company propose to let the water run down to their existing distributing scheme in order to *save* the trouble and cost of making one nearer the reservoir. The river conveys this water without any cost to the Company. All this has been brought before Government again and again in one form or other.

10. Lastly, should the timber trade to Bellary prove worth encouragement, it will give me great satisfaction to propose to the Board to include in their operations such works along the river Toongabudra as are desirable to facilitate the passage of timber down it during the year.

11. I make these remarks, not that I fear that the Engineers of the Madras Presidency will feel the discouragement into which ill-success of their operations hitherto has avowedly plunged those of Mysore, but because I see from the Government order under notice that these gloomy views are to pass beyond the neighbourhood of Madras, and may, if unnoticed, divert the application of private capital from schemes most carefully worked out, and approved under the supervision of the Madras Government.

FORWARDED to Government, with reference to G. O., dated 19th June 1872, No. 1,508.

(Signed) C. J. SMITH, Captain, R.E.,
for *Acting Chief Engineer for Irrigation.*

Proceedings of the Madras Government, Public Works Department, 17th December 1872.

No. 347. ORDER THEREON, 17th December 1872, No. 2,990.

IRRIGATION, No. 22.

ORDERED to be recorded.

2. The arguments advanced by the Chief Engineer of the Madras Irrigation and Canal Company have been anticipated in the letter to the Government of India, of which he will be furnished with a copy.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Chief Engineer for Irrigation.
,, Agent and Manager of the Madras Irrigation and Canal Company.

Exd. S. T. Austin.

No - Cudalore Irrig

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Madras Irri: and Canal Co.
Madras 13th September 1872

No 226

From. The Ag: Manager.
M. I. & C. Co.

To The Ag: Chief Engineer for Irri:
and Joint Secy to Government.
Madras.

Sir,

I have the honor to hand you at the request of the Chief Engineer copy of a letter which that Officer has drawn up for communication to the Government commenting upon the Reports with Reference to the Reservoir sites upon which G. O. No 508 of 19th June 1872 was passed..

I have the honor to be
Sir,
Your Obt Servt.

Ag. Manager.

Madras Drn. and Canals Circ. 9.

No. (—) Chief Engineers Office

Do. Nilgiris 9th September 1872.

Do. The Secy. to Govt.

Madras.

Reservoir Plans.

I have the honor to request you will communicate to Government the following remarks on the subject of their Order No. 1508. of 19th June last.

Captain Garrett's plan and practical

From Captain W. C. Garrett
Deputy Conservator of
Forests, Nilgiri Division
to the Conservator of
Forests, Mysore and
Coorg. dated Sheroor,
March 1872. No. 6.

note. My sheet No. 1 shows the proposed site for a Dam at Moodaba. It has been so selected as to avoid interference with any of the operations of the Observatory Department. The proposed Dam would be constructed up the river, would be concentrically executed with the Dam there as without it, while if the Dam and the aqueduct the Trees can be facilitated by irrigation without loss to the Company.

As regards Lucknowly Dam, his para 6. and 7. I need make no remark except that I have not recommended the Company to execute it, and I do not suppose it will be executed if the other site be available.

I trust that the experiment of planting logs down to Bellary may succeed, and lead to a diminution of the demand on the diminished forests of this District. A Dam such as proposed by the Company at Moodaba would probably facilitate but be expensive. By maintaining a flow of water in the river below it. While the Company could be called upon to provide a water short

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or slide for passing timber over the dam.

A more gloomy and conjectural view of the result of the introduction of water is expressed by the Conservator himself. The additional information he contributes is contained in his paras b and g, and in my opinion, not clearly unsound, is sufficiently established.

From the Conservator of Forests, Mysore and Coorg to the Secretary to the Commissioner of Mysore, Public Works Department, dated Bangalore 27th March 1872. No 2571

He first objects that a dam would render communication between different points of our forests impracticable in many parts and difficult in all. This is, I hope, an exaggerated assertion. I do not see how to answer it, because I do not see any fixed point which it exists, nor any reasoning which can lead up to it. But the Reservoir or Lake itself which will be an impediment to the floating of timber or will the passing of the water from the reservoir down the river obstruct the floating of logs thereon? The fact proved be that both the reservoir and the supply power from it would afford very valuable improvement to the Chief communication by water and I do not know that it would interrupt any communications of importance.

That the Conservators information is not of a kind to overweigh the conclusions of men who have dispassionately and laboriously investigated the facts, and considered the balance of good and evil results of a reservoir and of irrigation in a country like India the next item in it shows. He says The whole district which is already unhealthy will become far more so when it is liable to be flooded during the monsoon, and in the hot season great extent of swamp and morass will be covering up dead vegetable and miasmata. I contend that an unsupported assertion, or condemnation if correct, would not

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not be inserted in a letter on so important a subject by one who realized that importance, and the expense and pains already taken to bring a beneficial scheme to a practical issue. In the Conservator instance any district rendered unhealthy by a large reservoir or by any reservoir used for storage and irrigation? In the not instance numbers of Tanks the margins of which are favorite places for camping or lodging, and notoriously healthy, especially in the hot weather. I cannot guess where he expects the swamps to be in the hot weather. Any which exist round the Tank must be on its margin when filled by the monsoon for no vegetation can exist in the bed of the Tank where submerged annually for some months under deep water, but fresh tracts recede can exist on the margin where they would be dry in the hot season.

In conclusion I have only to notice the letter of the Secretary to the Government of Madras in the Public Works Department

No 902 dated 20th April last from the Assistant Secretary to the Chief Commissioner of Mysore. In reference to para 2 of that letter I should mention that the scheme includes an allowance of water for local use in the Mysore province. It seems quite reasonable and fair that the reservoir should be made beneficial to the people immediately concerned, nor do I see any serious difficulty existing or likely to arise to the works accomplished. The effect of the Tank could not fail to be to improve the healthiness of the immediate neighbourhood. The Company have no intention of constructing reservoirs which will not pay. I am astonished to learn that the Mavinkeray scheme which is on the site of a different scheme investigated and abandoned by the Company as turning out so ill conceived as to discourage any future extension of reservoir irrigation even on the most favorable sites in Mysore. The Company's Canvas submitted

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by me have been based upon careful examination and experience and I still have full confidence in them. In saying this I must notice that the plans of Lt Gordon cannot not be taken to be final in the details of construction and arrangement shewn on them. They are sufficiently definite for their purpose but are not working drawings.

Of the late Lieutenant Colonel Sankey's remarks one by one, there seems to me to be against, not for, his conclusion. He observes (para 8 of letter under remark) that the Madras Canal has every advantage of site. But I am of opinion that the site was justly condemned by the Company's Engineers for reasons which do not apply to Nundidroog and Neddadoch sites. Again I consider that a vigorous prosecution of a large work, with all the best & first class staff and plant which can then be obtained, may prove more efficient and economical than the somewhat desultory operations on the Madras Canal. Again in the latter scheme a channel system for utilizing the water has to be made; in the Company's scheme all this expense is saved. I cannot conceive what advantage there is in having to make the distributing Channels. The Company propose to let the water run down to their existing distributing scheme, in order to save the trouble and cost of making one to clean the reservoir. The river conveys the water without any cost to the Company. All this has been brought before Government again and again, in one form or other.

Lastly should the Irrigation Trade to Bellary prove worth encouragement it will give me great satisfaction to propose to the Board to include in the operations such work along the Cheyer Pongaburra as are desirable to facilitate the passage of timber down it during the floods.

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I make these remarks, not that I fear that the Engineers of the Madras Presidency will feel the discouragement into which ill success of their operations hitherto has unreasonably plunged those of Mysore; but because I see, from the Government Order under notice, that these gloomy views are to pass beyond the neighbourhood of Madras, and may if unnoticed divert the application of private capital from schemes most carefully worked out and approved under the supervision of the Madras Government.

I have &c
(Sd) John W. Latham
Chief Engineer

15

Letter from the Executive Engineer Chandpur Circle No. 1
dated 13th September 1872 No. 226 with
Copy of Chief Engineer's letter No. (—)
dated 12th August 1872 to Executive Engineer 1872.

Enclosures to Government letter
Revenue Dept. No. 1508
dated 19th June 1872.

From Lt. Gorge
28th Nov. 1872

To
Offg. Capt. R.E.
Jr. Dy. Cte: Engrs. for Rivers

Ref
The Acting Manager
To
The Acting Chief Engr
Irrigation
&c.

No. 226 C.E. No. 274

Dated 13th Sept 1872
Received 17th Sept 72

P.W. 5884/72.

1 Enclosure

Copy Chief Engineer's letter
commenting upon the Report
with reference to the Reservoir
Site upon which was based
G.O. No. 1508 of 19th June 1872

Ch. 5884 ✓

Gov^t. of {1872} Madras.

PUBLIC WORKS.

To the Chief Engrs for Irrigation

Dated
Rec^d. Encl. 2 ✓

G. O. 17th Decr 1872 2990.

Nos. 346 & 347

Proposed reservoirs at Lukmally and Maradaha. Reports submitted by two Chief Engrs for Irrigation, reserving their proposed reservoirs at Lukmally & Maradaha, recorded with remarks.

Ch. 5884

P. D. No. 5884 1872 Madras.

No. 5884.

From
The Chief Engr for Irrigation

To
The Secy. to Govt.
Public Works Dept.

Dated 28th Nov. 1872.

Rec^d 29th Nov. 1872.

Forwards with reference to G.O. No 1570 of 19th June 1872 Nos 226 Plan & Estimate with Copy of Chief Engr's letter & Enclosures & Reservoir Ledger.

Rs 2990 - D. Veera 12

P.W.D

9998

17.12.1871