M.R.O. 1—77,006—8-6-51.

(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. 321 Press Mis.

1882-683

Dated 9 — 60 — 1866.

Not to be folded or roughly handled

M R.O. 1—77,006—6-6-37.

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 32 e/1 Press Mis.

1824-83

Dated 9 — Oct — 1866.

Not to be folded or roughly handled

No. 182. Read the following letter from the Acting Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 13th September 1866, No. 380:—

1. I have the honor to submit, for the consideration and orders of Government, two letters* from the Acting Agent and Manager of the Madras Railway Company, in which he suggests that, in certain favorable places, the embankments of the North-West Line beyond Ghooty should be made to serve the double purpose of carrying the line and of storing water, and proposes, with the approval of Government, to submit a separate plan and estimate for each project.

* No. 449, 22nd August 1866.
,, 473, 7th September ,,

2. In Mr. Smart's first letter, he assumed that "the profit to be derived from "the sale of the water would, as a matter of course, be credited to the Revenue "Account of the Railway." While I believed his suggestions to be, in the main, most valuable, it seemed to me that there were several grave objections to the condition which I have just quoted, and I suggested† to him that it would be well, if possible, to modify that part of his proposal which related to the sale of the water, as I thought it very improbable that Government would accord their approval to it.

† In letter No. 414, copy enclosed.

3. Mr. Thomas' proposition, to which I drew Mr. Smart's attention, had reference to the District of Coimbatore, and was laid before Colonel Pears, the then Consulting Engineer, in January 1856. His suggestions seem to me most practical and valuable, but, from some cause of which I am unaware, they were not acted upon. The subject seems to have been again brought forward during 1861 by the District Engineer of Coimbatore, and Colonel Horsley, the then Chief Engineer, Public Works Department, called on the Consulting Engineer for his opinion upon Mr. Thomas' proposition. In replying‡ thereto Colonel O'Connell forwarded letters upon the subject from the Agent and the Chief Engineer of the Madras Railway, and stated that he agreed with them in thinking the proposed arrangements to be suitable; but I am not aware that any further steps were taken in the matter.

In letter No. 4,681, 6th September 1861.

‡ Letter No. 64, 15th May 1862.

4. In the second of the letters now enclosed, Mr. Smart suggests that, in place of the Railway Company themselves disposing of the water, "the Revenue "Officer in charge of the District should assess the value of each tank, and let the "Company receive that amount from Government, placing the tank under the "control and authority of Government." By removing all necessity for the Railway Company themselves levying a water rate, this seems to me to dispose of most of the objections to Mr. Smart's proposition, and to render it deserving of the favorable consideration of Government.

5. There can be no question as to the immense benefit which the construction of a series of reservoirs would confer upon the arid plains through which the line runs to the north-west of Ghooty; and, from what I know of the country, I do not think that any difficulties of an engineering character are to be apprehended, or that the cost of the line will be materially enhanced by the construction of

the reservoirs. The terms upon which the water in these reservoirs should be utilized, and the manner in which it should be appropriated, will probably form a question for decision in the Revenue Department, but it seems to me to be not unreasonable that the Railway Company should share in the profits which will certainly accrue from the execution of the proposed works, and Mr. Smart's present proposition seems to be a practicable mode of settling this. If it be acceded to, the cost of the site of each reservoir, which will of course be furnished by Government, must be considered in estimating its value; and it must be borne in mind that the duty of keeping in repair the reservoirs, and the various masonry works for regulating the discharge of water, &c., must necessarily devolve upon the Railway Company.

From the Acting Agent and Manager of the Madras Railway Company, to the Acting Consulting Engineer for Railways, dated Madras, 22nd August 1866, No 449

1. On looking over the section of the North-West Line beyond Ghooty, where it traverses the cotton plains, it has occurred to me that our embankments might in several places be made to serve the double purpose of carrying the line and storing water, the want of which throughout this part of the country is, as you are aware, severely felt If the general principle is approved of, I propose to send in a separate plan and estimate for each project, showing the comparative cost of constructing the line with and without storage, and the land likely to be inundated, which I presume will come under class C. The profit to be derived from the sale of the water would, as a matter of course, be credited to the Revenue Account of the Railway If you approve of my suggestion, I will at once request the Chief Engineer to let me have reports on two or three sites I will point out

2. I may mention that we have an example of this mode of construction in the embankment that carries the North-West Line over the low ground between the old Fort of Curcumbaddy and the Travellers' Bungalow There was formerly a bund there, but it has been very much improved and strengthened by the construction of the embankment. New sluices had to be built, and the surplus water finds an exit through the 20 feet arch at the north end of the bund We derive no revenue from this work.

From the Acting Consulting Engineer for Railways, to the Acting Agent and Manager, Madras Railway Company, dated Madras, 24th August 1866, No. 411.

I have the honor to acknowledge receipt of your letter dated the 22nd instant, No 449, in which you propose, with the approval of Government, to send in plans and estimates for the construction of embankments at suitable sites along the North-West Line beyond Ghooty, to serve the double purpose of carrying the line and storing water, the profits accruing from the sale of the water so stored being credited to the Revenue Account of the Company. Several grave objections to the details of your proposal have presented themselves to me, and I think it very improbable that Government would accord their approval to it Before, however, laying it before Government, I wish to draw your attention to the correspondence* noted in the margin, which refers to a proposal made in January 1856 by Mr E B Thomas, the then Collector of Coimbatore, to make use of a portion of the embankments on the South-West Line for the formation of a number of small tanks in his District You will observe that in some respects Mr Thomas' proposal differed considerably from what has now been brought forward by you: that all the additional outlay entailed by the formation of the tanks was to be borne by the Government, and that the water stored in those tanks was to be considered the property of Government, the Railway Company having the right to use such portion of it as might be required for their own purposes. Upon these conditions the proposal was approved of both by the Company's Agent and by the then Chief Engineer, and I now beg to suggest, for your consideration, whether it would not be well to assimi-

* From Consulting Engineer to Agent, No 732, 7th September 1861
From Agent to Consulting Engineer, No 335, 13th May 1862

late to it the details of the scheme brought forward in your letter under reply, as I am of opinion that owing to insuperable objections, the Government would withhold their approval from it.

From the Acting Agent and Manager of the Madras Railway Company, to the Acting Consulting Engineer for Railways, dated Madras, 7th September 1866, No. 473.

1. With reference to your letter No 414, dated the 24th ultimo, I regret that you should foresee grave objections to the adoption of my proposal to form tanks on the North-West Line. I have perused the correspondence referred to in the margin of your letter, and while all parties seem to have agreed that Mr. Thomas' suggestion was both valuable and practicable, the subject was allowed to fall to the ground with Mr. Elwin's letter of the 12th May 1862. This is very much to be regretted, and I trust that the present proposal will not be allowed to share the same fate It does not appear that Mr. Thomas contemplated applying the water to irrigation purposes, but merely meant to store it, and he proposed to deal with a line of Railway already formed, the alterations in which would have necessitated some extra outlay. Under these circumstances the Company could not dispose of the water as I have suggested, and the only way in which they could indemnify themselves for the extra outlay was in the way proposed by Mr Elwin.

2 I gathered from the conversation I had with you at the last Meeting of the Committee, that the difficulties you apprehended are not of an engineering character, but connected with the financial part of the question. I hope we shall find that these are not insuperable. If the Government object to our regulating the supply and levying a water rate, a very simple arrangement will be for the Revenue Officer in charge of the District to assess the value of each tank, and let the Railway Company receive that amount from Government, placing the tank under the control and authority of Government. In the case of the Curcumbaddy tank, the Ryots are enabled to regulate the supply of water to their fields without encroaching on the Railway property and quite irrespective of the Railway servants. The same arrangement might, without any difficulty, be adopted elsewhere.

No. 183. ORDER THEREON, 9th October 1866, No. 3,201.

RAILWAY, No. 16.

1. These papers have reference to a proposal made by the Acting Agent and Manager of the Madras Railway Company for the construction of the embankments on the North-West Line of Railway beyond Ghooty in such a manner as to enable them to serve the double purpose of carrying the rail and of storing water. Similar proposals appear to have been made for converting portions of the embankments of the South-West Line in the Coimbatore District into tank bunds, but they seem to have been dropped, apparently from the circumstance of the Railway having been nearly completed before they were brought forward.

2. The plan appears both practicable and beneficial, and as the terms on which it is proposed to carry it out leave the control of all the water that may be stored, and the management of its distribution, in the hands of the Government, who will make all necessary arrangements through the local Revenue Officers for disposing of it to the Ryots and for collecting a cess upon it as Railway revenue, it appears that, in principle, there is nothing to prevent the acceptance of the Railway Officers' proposals.

3. The Government will therefore be glad to receive plans of the proposed embankments showing the quantity of water to be stored by each, the extent of country to be submerged, and the probable area of culturable land suitably situated to be irrigated. With this information and the plans before them, the Government

Curcumbaddy and the Travellers Bungalow

Proceedings of the Madras Government, Public Works Department,
9th October 1866.

will be able to take the question into consideration as respects each site, and will be in a position to decide definitively as to the advantages or disadvantages of the Railway Officers' proposals in each case.

(True Extract.)

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

To the Consulting Engineer for Railways.
Revenue Department

Exd. S. T. Augustin.

N° 449.

MADRAS RAILWAY COMPANY.

AGENT AND MANAGER'S OFFICE.

Madras, 25th August 1866.

From

W. J. Smith Esqre
Agt and Manager of the M. R. Co

To

Major A. H. H. Shaw-Stewart, R.E.
Agt. Consulting Engineer for Railways.

Sir,

On looking over the Section of the N. W. Line beyond Ghooty, where it traverses the Cotton Plains, it has occurred to me that our embankments might in several places be made to serve the double purpose of carrying the line and storing water, the want of which throughout the best part of the country we do you not think is severely felt. If the general principle is approved of, I propose to send in a separate plan and estimate for each project, showing the comparative cost of constructing the line with and without storage, and the land likely to be inundated, which I presume will come under Class C. The profit to be derived from the sale of the water would as a matter of course be credited to the Revenue account of the Railway. If you approve of my suggestion, I will at once request the Chief Engineer to let me have reports on two or three sites. I will point out

2 I may mention that we have an example of this mode of construction in the embankment that carries the N. W. Line over the low ground between the old fort of Curcumbaddy and the Travellers Bungalow

There was formerly a bund there, but it has been very much improved and strengthened by the construction of the embankment. A few sluices had to be built & the surplus water finds an exit through the 20 feet arch at the North end of the bund. We derive no revenue from this work

I have the honor to be,
Sir,
Your most Obedient Servant

W. B. Sinclair

Exg. Agent & Manager

Railway Department

Copy: Engr: offce

No. 414

To

W. F. Smart Esqr
Ag. Agent & Manager
Madras Ry. Company.

Sir,

I have the honor to acknowledge
receipt of your letter dated the 22d instant, No
449, in which you propose, with the approval
of Government, to send in plans and esti=
=mates for the construction of embankments
at suitable sites along the North West Line
beyond Ghoorty, to serve the double purpose
of carrying the line and storing water, the profits
accruing from the sale of the water to be placed
credited to the revenue account of the Company.
General grave objections to the details of your
proposal have presented themselves to me, and
I think it very improbable that Government
would accord their approval to it. Before,
however, carrying it before Government, I wish
to draw your attention to the correspondence noted
in the margin, which refers to a proposal made
in January 1856 by Messrs G. B. Thomas, the then
Collector

× Armstrong: Coll. to Govt 782-4 Sept 7/61
Govt Agent to Chas Eyre 335-12 May 8/62.

MADRAS RAILWAY

From

The Agent and Manager

To

The Consulting Engineer

for Railways

P.W. 3835/65

Dated 22nd August 1866
Recd 23.

No. 449.

Proposing, with the approval of Govt, to send in Plans & Estimates for the Construction of Embankments on the N.W. Line beyond Ghoorty to serve the double purpose of carrying the line and storing Water

Collector of Coimbatore, to make use of a portion of the embankments on the South West Line for the formation of a number of small tanks in the District. You will observe that in some respects Mr. Thomas' proposal differed considerably from what has now been brought forward by you:- that all the additional outlay entailed by the formation of the tanks was to be borne by the Government, and that the water stored in those tanks was to be considered the property of Government, the Railway Company having the right to use such portion of it as might be required for their own purposes. Upon these conditions the proposal was approved of both by the Company's Agent and by the then Chief Engineer; and I now beg to suggest for your consideration whether it would not be well to assimilate to it the details of the scheme brought forward in your letter under reply, as I am of opinion that, owing to insuperable objections, the Government would withhold their approval from it.-

I have &c

(Signed) J. H. M. Shaw Stewart Major R.E.

A.g. Cons: Engr for Rys

Madras
24 August
1866

(True Copy)

Major R.E.

Acting Cons: Engr for Railways

No. 473

MADRAS RAILWAY COMPANY.

AGENT AND MANAGER'S OFFICE.

Madras, 7th September 1866.

From

W. G. Smart Esqre,

Acting *Agent and Manager.* of the M & C.

To

Major J. Kelly Shaw Stewart, &c.

Acting *Consulting Engineer for Railways.*

SIR,

1. With reference to your letter No 414 dated the 24th ultimo, I regret that you should foresee grave objections to the adoption of my proposal to form tanks on the North West line. I have perused the Correspondence referred to in the margin of your letter, and while all parties seem to have agreed that Mr Thomas' suggestion was both valuable and practicable, the subject was allowed to fall to the ground with Mr. Elwin's letter of the 12th May 1862. This is very much to be regretted and I trust that the present proposal will not be allowed to share the same fate. It does not appear that Mr Thomas contemplated applying the water to irrigation purposes, but merely meant to store it, and he proposed to deal with a line of railway already formed, the alterations in which would have necessitated some inconsiderable outlay. Under these circumstances the Company could not dispose of the water

as I have suggested and the only way in which they could indemnify themselves for the extra outlay was in the way proposed by the Colonel.

2. I gathered from the conversation I had with you at the last Meeting of the Committee that the difficulties you apprehend are not of an Engineering character but connected with the financial part of the question. I hope we shall find that these are not insuperable. If the Government object to our regulating the supply and levying a water rate, a very simple arrangement will be for the Revenue Officer in charge of the District to assess the value of each tank, and let the Railway Company receive that amount from Government, placing the tank under the Control and authority of Government. In the case of the Veerumbaddy tank the ryots are enabled to regulate the supply of water to their fields without encroaching on the Railway property and quite irrespective of the Railway servants. The same arrangement might, without any difficulty, be adopted elsewhere.

I have the honor to be,
Sir,
Your most obedient servant,

W. Bernard

Ag agent and Manager.

MADRAS RAILWAY

From

The Agent and Manager

To

The Consulting Engineer

for Railways

Dated 5th October 1861

Read 7th " 1861

No. 4983.

Submitting alternative estimates with reference to the Agreement of Maugnis Brothers for the Supply of Sand Stone.

Rec'y Oct 8th 1861

District Engineer's Office
Coimbatore 23d July 1861.

No. 177.

171

From

Captain J. Gaddard.
District Engineer Coimbatore.

To.

Lt. Col. W. J. Birdwood.
Dy Chief Engineer &c.

Sir,

I have the honor to enclose copy of a letter No. 183 dated 2d July 1861 with a list of Bridges & Drains from Collector of Coimbatore suggesting that we should turn the Railway Embankments in this District to account by turning it into a tank bund when available.

2. It appears the Collector laid this proposition before Colonel Pears when that Officer occupied the post of Consulting Engineer for Railways, but that no reply was ever received to his *letter and under these circumstances I would beg the present Consulting Engineer for Railways may be referred to

* in Coimbatore Salng.
" Pasidency do.
" Pulladom do.

* From Colr to Col: Pears No. 1 d/12th Jany/56 original letter herewith submitted.

of

to lay you for his opinion.

I have the honor to be
Sir
Your most obed.t Serv.t
(Signed) A G M Burns Capt.
for the District Engineer.

No. 183.

Coimbatore Collector's Office.
2.d July 1861.

From

C B. Thomas Esqre.
Collector of Coimbatore

To

Captain J. Gaddard.
District Engineer of
Coimbatore.

Sir,

I would beg your consider.
ation at leisure and opportunity,
of

of a proposition. I before made
of taking advantage of the 70
miles of Railway Embankment in
Coimbatore to form, at little expence,
a great many small but valuable
Tanks. at great benefit to the country
and no detriment to the Rail.

2. The Rail Bridges, and viaducts
are, I believe, all now completed at large
cost - it is too late to substitute Em-
bankments but each of these arches.
closed up below with Earth, would
form as many Tanks; some small
some large. a suitable Calingulah
or escape at either end of the Tank,
would be all that is necessary the
water stored would be a boon to
the Country and the Rail. and would
not hurt the Embankment as is
shown by many Rail Embankments
already.

of

already existing, at Singanellore, and thro the middle of large Tanks and swamps; or like every Tank Bund in the Country.

3. I annex a rough list of the Rail Bridges and drains, most of which could be thus converted and used.

Thave &c.
(Signed) E. B. Thomas
Collector.

(True Copy)
A. G. M. Burns Capt.
For the District Engineer,

Coimbatore Collector's
Office 12th January 1856.

No 1

From
E. B. Thomas Esq.
Collector of Coimbatore.

To
Colonel T. T. Pears
Consulting Engineer Railways

Sir,

I beg to submit for your opinion and Mr Bruces, a proposition which struck me as worthy of consideration, when riding along the Railway line with Mr Ross, with a view to inspect, as I have occasionally made a point of doing, that Officers are energetic and active in progress.

2. The line of country, as I dare say you will remember, (near Coimbatore towards Wallair) undulating and uneven, the water shed, and drainage, of higher lands with some low ranges of Hills, touching all the South westward.

3 The Rail runs thro' many

* New Head of the Railway Department.

* Railway Engineers.

* a few miles S.W. of Coimbatore.

4

many of these undulations, the Hollows being levelled by high embankments of 20 to 30 feet, which connect one rising ground with another, the Valley between, of ¼ or ½ mile in length, carrying off the water, to facilitate which, substantial cut stone Arches of 20 and 30 feet (in some places 2-3 and even 4 in number) at a considerable cost, strong enough to bear Rail traffic, are constructed - the drainage of the Country passes under these Arches or Drains, thro' the line of these embankments completed and filled in, instead of giving the waterway for the drainage of the Country, each of these high embankments across every small Valley, would form a small but valuable Tank, at a great saving to the Rail expense, and a substantial benefit to the Country.

A very simple calculation would believe that 1/3 the filling in the embankment constructed, would be only 1/2 or 1/3 the expense of these masonry waterways, and however secure fully such Bridges may be built, a permanent embankment is of course more durable, as well as cheaper.

The waterways are not wanted, a Recd of water, in this dry Country, would be much valuable, in fact, like of use to the Rail, as well as the Country - if not for irrigation at least for Cattle, wells &c - In fact the line of Rail, in our undulating Country like Coimbatore, would form one vast Bund, running across the

4

the Country, to be taken advantage of for retaining a Head of water in every Valley it crosses in the Rail limits alone (oblique) above 25 miles at least, or 8 small and large Tanks would thus be naturally formed, by simply filling in, instead of Bridging the Hollows.

7. As we spoke which I visited, on my way, a viaduct of 7 arches, which must cost 300 Rs or more, were begun merely to allow waters during Rains to pass, which water would be of much more value if dammed up - a process cheaper, safer, and easier, to the Rail.

8. The only places where such drains or Bridges are required, are

or water ways, is where the line crosses a Tank bed at Singanallore, or intercepting Channel or River, (as the Nattabuk where the heads of the high lands Southwest of Coimbatore) the drainage goes to no Tank, or Channel, or practical end, but loses itself gradually by absorption and evaporation, over the face of the Country.

9. It may be feared that such Heads of water by converting portions of the Rail embankments into Tank Bunds, might affect or endanger the embankments - practically there can be no such fear. Many of the high Roads of the Country run along the top of Tank Banks, I never heard of any such Tank Bund sinking or the Road endangered - or the water oozing thro' the Bund.

10. Moreover the Rail embankment has four times the stability of

of any Tank Bund - A Tank Bund is usually nearly perpendicular inside, and no great slope outside, the Rail embankment is generally at an angle of 45, with a broad base proportionate to the height - a base treble that of any Tank bund I saw - to ensure safety however, the embankment might be stoned, as a Tank, on the water side - and a small safety valve, or Calingulah be left at proper and levelled distance for a rivers drain, at the bottom of the embankment, wherever safest - such under drain serving, at nearly all sections (8 feet high) for all passage under the line, for men and Cattle.

Have written at length, to make my meaning clear, and I think my proposition is a practicable and practicable one, and by no means visionary - Mr Rose I believe coincided with me in all the main points, and of his practical Judgement and skill. Mr Bruce will be the best Judge.

12. Near most of these waterways are already built in the Rail District, but there is much yet to be done in the Coimbatore District, and along similar Country and before all these costly masonry waterways are decided on, I think it is worthy of some consideration whether a continuous embankment, collecting many valuable heads of water, some small & some large, according to the slopes of the land, would not be cheaper, more durable, and more valuable.

13. The Rail has many Cons. tried runs across rivers, and even wet, false, ditch with water on each side - why should there be more danger here? A Civil Engineer, Mr Fraser is now going about Coimbatore District looking for sites of new Tanks - is not the Rail, with its perfect levels, in its progress over an undulating Country, a silent but efficient indicator of where the water shed of the Country naturally points

points out such sites? As to safety of the Bund, I need only remind you, of the large Contractors Sault Bund, along which the high Western Road runs, perfectly safe and dry, and bound, & Rl it has a depth of 20 feet water, & nearly perpendicular, with a south west wind, constantly beating against it - there being moreover a lower Road on the outside of the Bund, and at its foot, also dry and safe - a better example could scarcely be at hand.

14 Trusting you will excuse my troubling you at length on a subject which appears to me both practical and feasible and not theoretical or speculative.

I have the honor to be Sir
Your Obt Servt
(Signed) E. B. Thomas
Collector

(Signed) E. B. Thomas
Collector
(Signed) A. G. M. Burns Capt
for the District Engr Coimbatore

25

No. 4681.

To the Consulting Engineer
for Railways.

Sir.

I have the honor to forward
the accompanying original cor-
respondence marginally noted
(to be returned to this Office when
no longer required) and to request
that you will be good enough to favor
me with your opinion on the pro-
position of the Collector of Coim-
batore.

No 177 D/ 23d July 1861 from the Dr Engineer
No 9 D/ 12th Jany/66 from the Collector with 4 Enclosures

(Signed) W. H. Horsley Lt Col
Chief Engr D. P. W.

No. 7740.

To the Consulting Engineer
for Railways.

Sir,

I do forward this for your

information, copy of a letter from the Collector of Coimbatore, I have the honor to request that you will be good enough to favor me with an early reply to my letter № 4681, dated 6th September last, enclosing for your opinion correspondence connected with the Collectors proposition to take advantage of the line of Railway in that District to form numerous valuable reservoirs.

29th Novr 1861 (Signed) W.H. Horsley Lt.Col. Chief Engr. D.P.W.

Coimbatore Collector's Office.
14th November 1861.

№ 300.

From E.B. Thomas Esqr.
Collector of Coimbatore.

To.

Col. W. H. Horsley
Chief Engineer D.P.W.

Sir,

As I believe the subject is again engaging the attention of the Chief Engineer of the Rail, I would beg to bring to your notice a letter dated 12th January 1856, for consideration as to whether advantage may not be taken (as proposed in my letter to Col Vears) of the Rail Line, to form numerous small but valuable Reservoirs, at small expense to Government and great benefit to the Country.

2. It is too late now to benefit the Rail, their expensive Bridges (over the water sheds and nullahs,) being already built- but, with their concurrence, Government could still, at little cost, construct every such Bridge into a Calingalah, by building up the Arches, halfway; adding an apron

apron on the lower side, and thus constituting each Bridge into a surplus "water weir" - the Rail embankment, (stoned if thought necessary) being the Bund - Where the escape is sufficient, there can be no fear or detriment I think to the Embankments - I do not propose for large Reservoirs. There might not be much irrigation, but the percolation thro, to all the wells and lands below the Rail line, would be invaluable.

I have the honor to be
Sir,
Your most Obed[t] Servt.
E. B. Thomas.
Collector.

No 1264.

33

To
The District Engineer
Coimbatore

Sir,

I have the honor to forward herewith
No 912, dated 3rd May 1862, Copy & Extract Proceedings of the Chief Engineer with enclosures relating to a subject of considerable interest not only to Coimbatore but to various other Districts, viz the feasibility of taking advantage of the Railway embankments as bunds to store water in a series of small tanks and I trust you will, when the pressure of other duties admits of it, confer with the Collector on the subject, with a view to the detection of a site suitable for the experiment which Mr Elmira suggests.

Signed J. Ouchterlony Lt Col
2nd June 62. Actg Dy Chief Engineer in charge

Extract

№ 912

Extract from the Proceedings of the Chief Engineer in the D.P.W. under date the 23 May 1862.

Read the following letter from the Acting Consulting Engineer for Railways.

Here enter dated 15th May 1862 № 64

Ordered that a copy of the foregoing letter and of its accompaniment be forwarded to the Deputy Chief Engineer in charge of the Southern Circle for transmission to the District Engineer of Coimbatore for information.

2. Copies of the above papers have been furnished to the Collector, who, if he concurs in opinion with his predecessor will no doubt consult the District Engineer as to the most favorable sites along the line for forming tanks by means of the Railway embankments, in which case the latter officer should report for the information of Government, the extent and nature of the works proposed to be undertaken and the probable cost, as well as return to Government, should it be sanctioned. Government will then be in a position to say whether it is worth while to call upon the Railway Company Officers to prepare detailed Plans and Estimates with a view to the work being executed under their supervision.

True Extract

(Signed) W. H. Horsley Lieut Col
Chief Engineer D.P.W.

To
The Dy Chief Engr in charge of Southern Circle
No 911.

To The Collector of Coimbatore

Sir,

With reference to your predecessors letter of the 14th November 1860 No 308 representing the advantage which he considered

Madras 15th May 1862.

37

No. 64.

To

The Chief Engineer
D & Br.

Sir, I have the honor to forward for your information two letters as per margin* regarding a proposal to make one of the Railway Embankments or Tank bunds originally brought forward by Mr. E. B Thomas which was at the time of his taking up the question in charge of the Coimbatore Collectorate.

2. Both the Agent and the late Chief Engineer are of opinion that Mr. Thomas' proposition might have been taken up and acted on

considered would attend the formation of reservoirs above the Railway embankments. I have the honor to enclose for your information copy of a communication from the A.G. Consulting Engineer for Railways regarding the proposal from which you will observe that the Railway authorities and himself are of opinion that Mr. Thomas' proposition might have been carried out with advantage when first brought to notice, and that although it is now too late to some expense in the construction of the bridges some benefit may yet result from it.

2. A copy of the same communication has been furnished to the Dr Engineer for his information.

Sig[d] W.A. Horsley Lt Colo
Chief Engineer P.W.D.

Sd/- 23d May 1862.

Enclosures
1 Copy of letter from Chief Engineer No 64 d/ 15 May/62 and do of one d/ 12th May/62 No 335. from the Agent & Manager. No 972 d/ 4th Nov/61 from the late Chief Engineer to the Madras Railway.

* From the Agent & Manager of the Madras Railway No 335 d/ 12th May 1862.
From the late Chief Engineer of the Madras Railway to the Agent & Manager No 972 d/ 4th Nov/61.

with considerable advantage when it was first brought to the notice of Lt Col S. I Pears and that, although, owing to the completion of the Railway bridge, it is now too late to save expense in their construction, some benefit may yet result from it.

3 They propose that the Collector be called upon to select and to point out to the Railway Engineers one favorable site. On this being done, the Agent expresses his readiness to have the necessary plans and Estimates prepared for Government on the understanding that the Railway Company's Officers only will be employed in the execution of the required works, and that all expenses attending the conversion of the Railway embankments into Tank bunds will be borne by Government.

4. In forwarding the Agent and late Chief Engineer's letter on the subject, I have the honor to return the documents which accompanied your letter to Lieut Col C C Johnston N° 4681 dated 6th September 1861 and in reply thereto, to state that in my opinion the arrangement now proposed by the Agent is a suitable one.

4. In

[illegible] opinion [illegible] proper to be derived from the Sale

Railway Department.

CONSULTING ENGINEER'S OFFICE,

No. 380-

From

Major T. H. M. Shaw Stewart R.E.
acting Consulting Engineer for Railways,

To

Colonel L. A. Orr R.E.
Secretary to Government,
Public Works Department,
Fort Saint George.

SIR,

I have the honor to Submit, for the Consideration and Orders of Government, two letters from the Acting Agent and Manager of the Madras Railway Company in which he Suggests that, in certain favorable places, the embankments of the North West Line beyond Ghoorky should be made to serve the double purpose of carrying the line and of storing water, and proposes, with the approval of Government, to Submit a Separate plan and Estimate for each project.—

2 In Mr Smart's first letter, he assumed that "the profit to be derived from the Sale

of

"of the water would as a matter of Course be credited
"to the Revenue Account of the railway". While I
believed his Suggestions to be in the main, most valua-
-ble, it Seemed to me that there were several grave
objections to the condition which I have just Quoted
and I Suggested to him that it would be well, if
possible, to modify that part of his proposal which
related to the Sale of the water; as I thought it
very improbable that Government would accord
their approval to it.—

3 Mr Thomas's proposition, to which I
drew Mr Smarts' attention, had reference to the Dis-
-trict of Coimbatore and was laid before Colonel
Pears, the then Consulting Engineer, in January 1855.
His Suggestions Seem to me most practical and valua-
-ble, but, from Some Cause of which I am unaware,
they were not acted upon— The Subject Seems to have
been again brought forward during 1861 by the Dis-
-trict Engineer of Coimbatore, and Colonel Horsley,
the then Chief Engineer Public Works Department,
called on the Consulting Engineer for his opinion upon
Mr Thomas's proposition.. In replying thereto,
Colonel O'Connell forwarded letters upon the Subject

from

In letter No 2114
Copy enclosed

In letter No 2681. 6th
September 1861.

× Letter dt 6th Feb. 15th
1862

from the Agent and the Chief Engineer of the Madras
Railway, and stated that he agreed with them in
thinking the proposed arrangements to be Suitable; but
I am not aware that any further steps were taken in
the matter.—

4 In the Second of the letters now enclosed
Mr Smart Suggests that, in place of the Railway
Company themselves disposing of the water, "the Revenue
"Officer in charge of the District should apprize the value
"of each tank, and let the Company receive that a-
-mount from Government; placing the tank under
"the control and authority of Government". By
removing all necessity for the Railway Company
themselves levying a water rate, this Seems to me to
dispose of most of the objections to Mr Smart's pro-
-position, and to render it deserving of the favorable
consideration of Government—

5 There can be no question as to the immense
benefit which the construction of a Series of reservoirs
would confer upon the arid plains through which the
line runs to the north-west of Ghooty; and, from
what I know of the country, I do not think that
any difficulties of an Engineering character are
to be apprehended, or that the cost of the line will
be materially enhanced by the construction of the

reservoirs.

RAILWAY DEPARTMENT.

From

The Consulting Engineer

for Railways,

To

The Secretary to Government,

Public Works Department,

Fort Saint George.

Dated 13th September 1866.

Received 15th September 1866.

No. 380.

Encls: 3.

Submitting for the orders of Govt, 2 letters from the Acting Agent & Engineer of the S.I.R. Coy, suggesting that the Embankments of the S.W. Line beyond Ghooty should be made to serve the double purpose of carrying the Line

Dy No 3201 - 9th Sept 1866

Chief Engr. Coll Genl.

Dy No 1866

Secy to Govt (P.W.D.)

Thos of Govt Lr No 3835

Dy No 1866

Acting Chief Engr. Railways.

Sir,

I have the honor to forward herewith, for the information of Government, a letter from the Agent of the Great Southern of India Railway Company, dated the 22nd ultimo, requesting that the Company may be allowed to construct masonry works for regulating the discharge of water, &c., which must necessarily devolve upon the Railway Company in the formation of the reservoirs. The terms upon which the water in these reservoirs should be utilized and the manner in which it should be appropriated, will probably form a question for decision on the Revenue Department, but it seems to me to be most unreasonable that the Railway Company should share in the profits which will certainly accrue from the execution of the proposed works, and Mr Smarts' present proposition seems to be a most equitable mode of settling this. If it be acceded to, the cost of the site of each reservoir, which will of course be limited by Government, must be considered in the valuing its value; and it must be borne in mind that the duty of keeping in repair the reservoirs and the works connected therewith, must be undertaken upon the Railway Company.

I have the honor to be,

Sir,

Your most obedient humble Servant.

Chief Engineer.

13th September 1866.

Madras

Dy No 1866 Dated 22nd Sept 1866. A. 22nd

found principle the Board should concur in that the R Com[mis]s Board bear all the expense involved in the construction of the diversion [illegible] [illegible] from the [illegible] to the [illegible] & in all such cases in future the R Com[mis]s & the Municipality are to be called upon to contribute - Board to be consulted from time to time as the work progresses & finally when completed by the Engineer of the R Com[mis]s -

This will be carried into effect by the Board pointing out to the Municipality the principle on which the Board will act, & the Municipality will then be called upon to submit plans & estimates for the Board's approval, the Municipality to be called upon / Railway to be called upon / tenders with particulars of extent of country to be submerged under each principle. The Municipality will then be called upon to carry out the communication

M R Rennie in Hon[ou]r

J.P. 4/1

Of course, Laws are irresistible but immune advantages we are likely to be secured & the real system of the Railway Engineers' plans but I would not do more than recognize the principle & when they are ready, refer the plans & estimates to the Municipal authorities of the district to report how existing interests would be affected & the inundation of cultivated area by the [illegible] of partial [illegible] of water supplies now secured - It may be that compensation due under these heads will more than counterbalance the benefits calculated on from the construction of Railway Works -

W.H.H.

149

Public Works Department.

No. 3201

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 9th Octr 1866.

From

The Acting Consulting Engineer for Railways

Read the following

(Here enter No. 380 dated 13 Septr 1866.)

These papers have reference to a proposal made by the Agent and Manager of the Madras Railway Company for the Construction of the embankments on the S. W. Line of Railway beyond Ishoor in such a manner as to enable them to serve the double purpose of carrying the rail and of storing water. Similar proposals appear to have been made for Converting portions of the embankments of the S. W. Line in the Coimbatore District and Tank Bunds.

F. W. Frm. 9 Octobr 1866 Lr to 182.

but they seem to have been dropped, apparently from the circumstance of the Railway having been nearly completed before they were brought forward

The plans appear ~~appears~~ ~~[illegible]~~ to appear both practicable and beneficial, and as the terms on which it is proposed to carry it out leave the Control of all the water that may be stored, and the management of its distribution, in the hands of the Govt., who will make all necessary arrangements through the local Revenue Officers for disposing of it to the Ryots and for collecting a cess upon it as Railway revenue,

it appears that in principle there is nothing to prevent the acceptance of the Railway officers proposals.

The Govt will therefore be glad to receive plans of the proposed embankments showing the quantity of water to be stored by each, the extent of Country to be submerged, and the probable area of Culturable land suitably situated to be irrigated. With this information and the plans before them, the Government will be able to take the question into Consideration as respects each site, and will be in a position to decide definitively as to the advantages or disadvantages

of the Railway Officers'
proposals in each Case.

Dft 1866 Depart
Proof for per Oct 1866

No 3201

Encl Proof of the Madras Govt
Dl 9th October 1866

The Consg Engr
requested to submit Plans
of Railway Embankments
which are proposed to be
Constructed to serve the
double purpose of Carr-
-rying the Rail and of
Storing water.

No 182-183

To The Consg Engr for Railways
Revenue Dept. Dept. 22nd October 66.

Dept. 10 October

20
2

22nd Septr 1866 I Draw