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# TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

*Revenue* DEPARTMENT

|          |                  |        |
|----------|------------------|--------|
| G.O. No. | <u>2140</u>      | Press. |
| B.P. No. |                  | Mis.   |
| Dated    | <u>14-4-1977</u> | 197 .  |

Not to be folded or roughly handled.

Read the following papers:—

No. 781. From Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, to the Secretary to Government, Public Works Department, dated Camp Cholaveram, 25rd January 1877, No. 3,678.

I HAVE the honor to forward plan and sections of the Ennore river near its mouth, estimate for which was sanctioned in G.O., No. 1,213, of 16th May 1876.

2. I would call attention to its condition in the direction of the outlet channel proposed by me and of that at which it was cut in 1876, agreeably to G.O., No. 3,416, of 1st December 1875, there is now very little water north of F G, and consequently it is much more difficult and expensive to keep open a channel at K than it would be at E.

3. I do not hesitate to repeat that Messrs. Binny and Co. have no claim on Government for the injury done to their house. Its foundations had been washed away long before the flood of 1874; it was built in a most exposed situation, and the remains of efforts made at different times to protect it are, or were till lately, plainly visible.

4. In any case it would be better economy to pitch the bank of the river round their property and to cut the bar at its southernmost extremity, than to attempt again to open the river where the tide water can have no good effect.

5. I would urge early consideration of the subject, as, judging from the experience of last year, we may very shortly have to open the bar in the interest of the salt revenue.

6. I proposed to run a stone groyne from the beach at the south side of the cut into the sea as far as 2 feet depth below low water mark to protect the outlet from the blow of the surf wave. The beach up to the Salt Kotar should be covered with casuarina trees, screw pine, and any other plants and creepers that will grow, and prevent the passage of sand when the south wind is blowing. I am of opinion that a jetty on the left bank is not necessary.

7. If the experiment be considered doubtful, I would ask to be allowed to try it at Covelong, where a reef of rock requires only raising and lengthening, and where there is abundance of stone handy.

8. If Covelong Bar can be kept open we may fill the Adyar basin and, through the Junction Canal, the Cooum, as the long prevailing south wind will drive it up in that direction.

9. If the experiment succeed at Covelong, I see no reason why the plan should not answer at Ennore, and still better at Pulicat, where the lake affords a very large tidal basin.

10. The Cocanada Channel has been retained in the same place as I cut it in 1873. The Suez Canal is worked on the same principle, and on a still larger scale the Mississippi.

11. In every case of rivers on this coast I believe that it is important to open the channel as far south as possible, and to maintain it there; the tendency of the current and of the wind-borne sand being to shift the mouth to the north; the tidal ebb and flow will generally scour along the sea face of the groyne which turns the sea current into deeper water; this groyne will, in the course of time, need to be lengthened as the deposit increases.

*Proceedings of the Madras Government, Public Works Department,  
31st March 1877. No. 1,095.*

No. 781-A. Proceedings of the Madras Government in the Revenue Department,  
dated 6th March 1877, No. 949.

Proceedings of the Board of Revenue, dated 2nd March 1877.

Read the following letter from R. W. BARLOW, Esq., Collector of the  
Chingleput District, to H. E. STOKES, Esq., Acting Secretary to the  
Board of Revenue, dated Chingleput, 22nd February 1877, No. 126.

I was about to address the Board regarding the shallow state of the northern  
and southern canals owing to there being no freshes, and the consequent closing  
of the bars resulting in hindrance to navigation and salt manufacture, when  
I received their Proceedings of the 16th instant.

2. I beg to report that it is highly desirable that the Ennore Bar should be  
kept open, and some measures of a permanent nature for keeping both it and the  
Covelong and Pulicat Bars open seem urgently called for in the interest both of  
traffic and of salt manufacture. I should be glad to see Colonel Moberly  
permitted to try his experiment either at Covelong or Ennore, whichever is deemed  
advisable. I believe the Superintending Engineer has given the subject consider-  
able attention.

3. At the same time, I should remind the Board that keeping the bars open  
is part of Mr. Woolley's proposals (*vide* paragraph 5 of Government Order, Public  
Works Department, No. 1,992, dated 3rd August 1876); but whether in connection  
with the main canals or the salt channels I am not aware. I will report regard-  
ing the latter shortly, and I am informed by the Superintending Engineer, though  
I have received no orders on the subject, that the repair of the main canals was  
transferred to Mr. Woolley on the 1st instant.

4. Meantime, I have the honor to report that I have authorised, in antici-  
pation of sanction, the measures proposed by the Salt Deputy Collector in his  
No. 59, dated 1st instant, extract from which I herewith forward for the informa-  
tion of the Board, and beg to draw attention to the state of the canals as therein  
described.

5. The plan which accompanied the Board's Proceedings under reply is  
herewith returned.

ENCLOSURE No. 1.

From D. V. NARASINGA ROW, Deputy Collector in charge of Salt, Chingleput District, to  
R. W. BARLOW, Esq., Collector of Chingleput District, dated Ennore, 16th February  
1877, No. 59.

In continuation of my letter to you, dated the 20th ultimo, No. 23, I beg to inform you that  
both the Pulicat and Ennore Bars being closed, there is no communication between the sea and  
Cochrane's Canal; consequently, the water in it is daily diminishing and the navigation of boats  
above 10 tons burden is entirely stopped, while the smaller boats of lesser burden are only plying  
between Kattivakum and the northern country; and I believe that in a few weeks more there  
will not be sufficient water in the canal for the passage of even these smaller boats.

2. The weather being clear, the salt works at all the divisions are going on, and the  
manufacturers have worked 760 pans more in comparison with the number they worked last year

*Proceedings of the Madras Government, Public Works Department,  
31st March 1877. No. 1,095.*

up to date, and a small quantity of salt will be produced soon; but the water in the irrigation  
channels intersecting the pans, and which are supplied by the Cochrane's canal is failing, so that  
there is great difficulty to proceed with the manufacture. I have arranged to clear immediately the  
silt in the centre of the canals, so that there may be no impediment for the daily supply of water  
to the pans under operation for some period, and the estimates for the same are submitted for  
your sanction with separate letters.

3. The Ennore Bar is kept open at a cost of Rs. 3-10-0 per day from the 18th ultimo, but  
as the sea has been very smooth, and has not risen high in agitation, water has not been poured  
from it into the back-water. I have therefore arranged to work the Ennore Bar at a cost of Rs. 30  
per day for a few days during the present new moon springs, and we will try all our best to secure  
some water in the canal; but I am afraid that a full and free communication cannot, under present  
circumstances, be maintained at any cost between the sea and the back-water, and the water in the  
canal is being daily driven towards the north by the action of the southern wind, and we shall not  
perhaps be able to make much salt if the present quantity of water in the canal is not retained.  
As mentioned above, the navigation in the canal is already interrupted and free navigation cannot  
be resumed until May next, when the sea becomes boisterous in each year and pours large  
quantities of water into the back-water, or until we have a good fall of rain and freshes in  
the canal.

(True Extract.)

(Signed)

R. W. BARLOW,

Collector.

SUBMITTED to Government with reference to G.O., dated 6th February 1877,  
No. 685.

2. It is very important that the Ennore Bar should be opened at once to admit  
water for salt manufacture, and if it is possible to render the canals navigable, it  
should be done. The Bars at Pulicat and Covelong should also be opened, and the  
existence of a reef of rock at the latter place points to its suitability for the pur-  
poses of Colonel Moberly's experiment. As the opening of the Ennore Bar appears  
from the papers recorded in G.O., dated 3rd August 1876, No. 1,992, to come  
within the scope of Mr. Woolley's agreement, he should be requested to proceed  
with the work at once. It does not appear that much good is likely to result from  
the Deputy Collector's operations. Meanwhile, it seems that the brine supply is  
failing, and that there is a difficulty in proceeding with the manufacture. The  
early orders of Government are therefore solicited.

(True Copies and Extract.)

(Signed)

C. A. GALTON,

Sub-Secretary.

Miscellaneous.

COMMUNICATED to the Public Works  
Department in continuation of G.O.,  
19th February 1877, No. 749, for early  
consideration and orders.

(True Extract.)

(Signed)

D. F. CARMICHAEL,

Secretary to Government.

No. 781-B.

MEMORANDUM.

In dealing with the question of the opening of the Ennore and Covelong Bars, it must be first remembered that the last two seasons have been abnormal ones, and except in such seasons the bars remain either open altogether or sufficiently long as to be no hinderance either to the manufacture of salt or the navigation of the canals, and that the cost of preparing the bars for floods when necessary in ordinary years is very trivial.

2. G.O., No. 2,534, dated 21st September 1876, gives the cost of opening the bar last year as Rupees 4,255, estimates the maximum cost as Rupees 5,000, and points out that the expenditure being only likely to be exceptional, it is inadvisable to take steps for the construction of expensive permanent works of doubtful utility.

3. Colonel Moberly has submitted neither plan, estimate, nor specification for his proposed experiment.

The construction of a single groyne south of the outlets to protect them from the heavy wind-driven and sand-laden waves from the south, from observations made of the action of the harbour pier, &c., promises well; but the height of such a groyne should be greater than that noted by Colonel Moberly and should certainly be extended till it reaches at least a depth of four feet at its end seawards at low tide. At Ennore, where no stone is to be had within a reasonable distance, such a groyne would prove most expensive to construct, but at Covelong, where stone is reported as available on the spot and good foundations already exist in the shape of a reef, the cost of the work would be far more moderate, and therefore if Government desire the experiment be tried at this place the Superintending Engineer will be directed immediately to submit a plan, estimate, and specification for the groyne and cutting and authorized to commence the sand excavation at once. I do not think two openings necessary, it would double the work to be done, maintained, &c., and take a great number of people to carry them out simultaneously.

4. The question of the site for the opening to be made at Ennore must rest with Government to decide. What the Superintending Engineer states with reference to the difference of cost of maintaining a channel open at E and K as shown on the plan accompanying these papers is perfectly correct. The sections at E C and I K show how very much deeper the water is at E than at K, but there can be no doubt that an opening at E would endanger the property in its vicinity or entail a heavy cost for its preservation. The cutting at K answered very well last year, and in all probability will do so again, while, probably with the experience gained it will cost less than it did before.

5. As noted in paragraph 1 of this memorandum, it being but very occasionally that any but the most trivial expenditure has to be incurred in opening the Ennore Bar, no mention has been made about the Ennore Bar in the draft specification for Mr. Woolley's contract for canal clearances still under preparation. If Government desire that Mr. Woolley be requested to tender for the work, the Superintending Engineer will be called upon to submit a specification of the actual work he executed last year in reference to the width of the cutting, the depth below low water of springs at which he maintained it, and the time he kept this depth open, &c. I fear, however, it will be a very difficult matter for the Public Works Department to see that the terms of a contract for the work are strictly adhered to, to do such the constant presence of

Public Works Officer on the spot would be necessary, and even then complications and disputes would, I think, be very likely to arise, therefore I cannot recommend that a work of this nature be executed by contract.

The exact position at present of the negotiations with Mr. Woolley in reference to the canal clearances is as follows:—

The Chief Engineer, Public Works Department, the Deputy Chief Engineer, and Mr. Woolley some little time ago inspected the canal and the Shedien Coopum Lock, with the view of arriving at some conclusions as to what datum was to be fixed in regards to the depth the canal has been, and has to be, maintained. From inquiries made it appears that hitherto the depth fixed for the canal to be maintained at has been one foot six inches above the Shedien Coopum Lock sill. Mr. Woolley proposed that it should be ascertained what amount of silt exists in the canal at this depth (Mr. Woolley wishing to defer further negotiations until this information had been obtained) and the enclosed orders marked in red ink A B, &c., were issued on the subject. Meanwhile Mr. Woolley agreed to take up the work of clearing the silt between the lock and the Elephant Gate bridge, on the understanding that should the contract fall through the work he should do should be measured up and paid for at the rate of 1 Anna 4 Pies per cubic yard. The Acting Chief Engineer inspected the work this morning. Mr. Woolley informed him he had finished about one-third of it. The level sections of the canal will probably be completed during the week when Mr. Woolley will be in a position finally to conclude his negotiations one way or the other.

FORT ST. GEORGE,  
26th March 1877.

(Signed) W. FAREWELL, Colonel,  
Acting Chief Engineer, P.W.D.,  
Buildings and Roads Branch.

No. 782.

ORDER THEREON, 31st March 1877, No. 1,095.

CIVIL WORKS, No. 67.

HIS GRACE the Governor in Council directs that the Ennore and Covelong Bars be opened without loss of time, under

the direction of the Superintending Engineer, by whom the operations required can be more fitly superintended than by Mr. Woolley.

2. The Ennore Bar should be cut in the same place as last year at the point marked K on the plan.

3. His Grace is anxious that the utmost expedition should be used in opening the Covelong Bar. The question of running out a groyne, as proposed by Colonel Moberly in paragraph 6 of his letter of the 2nd of January, should be simultaneously taken up, but the cutting of the bar must not be delayed until the plan and estimates for the project are ready. The submission of these, however, the Superintending Engineer will hasten, and he will report to Government the success which has attended the operations now directed.

(True Extract.)

Colonel,  
Acting Joint Secy. to Govt., P.W.D.,  
Buildings and Roads Branch.

To the Superintending Engineer, Chingleput, with one plan.  
.. Revenue Department.  
.. Board of Revenue.

7 Exd. A. Grubert.  
Spare Copies

Revenue (1877) Department  
No 2102

Govt. of (1877) India  
PUBLIC WORKS.

✓  
The SUPERINTENDING ENGINEER,  
CHINGLEPUT,  
&c. &c. &c.

Dated March 31st.

Issued

Recd. 12 April/77

Encl.

G. O., 31st March 1877, No. 1,095.

See Memo

MARCE.

Nos. 781-782.

More and Cheong Bars. Directing the  
immediate opening of the

No 2102  
Lodged  
14 April '77