

(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. <i>268</i>	Press
<i>550, 551,</i>	Mis.
Dated <i>27-1-</i>	<i>1873</i>

Not to be folded or roughly handled

No. 550. Read the following letter from the District Engineer, Tinnevely, to the Secretary to Government, Public Works Department, dated Palamcottah, 14th January 1873, No. 19:—

I HAVE the honour, with reference to G. O., No. 2,823, of the 3rd December 1872, and the memorandum of the Chief Engineer for Irrigation regarding the

One plan.

Kottikulam water dispute therewith published, to report that I have taken levels and sections of the channel which runs through the village of Kottikulam and the result is given below.

2. With regard to paragraph 2 of Major Oakes' memorandum I find that in roughly taking 2' as the depth which might pass over the two weirs, I overlooked the difference of level between the two, and that it is hardly likely that even after excessive rainfall the quantity would be as large as I stated.

3. First, as regards the Kannimarkolum itself, I find that in the irrigation register the area of catchment is stated at half square mile; it is entirely a rain-fed tank. For the purposes of calculation I will assume its catchment basin to be $\frac{1}{2}$ square mile, and supposing that when the tank is full a heavy fall of rain, say 6", occurs and all runs off the ground (which is gravelly and rocky) in 24 hours, the discharge from both calingulahs would amount to $\frac{86,044 \times \frac{1}{2} \times 6}{24 \text{ Hours}} = 16,133$ cubic yards

per hour.

4. In addition to the discharge from the tank the Oday (local word for natural water-course) has to discharge the drainage from about the one-third of square mile as shown in the accompanying plan traced from the Revenue Survey maps. A rainfall of $\frac{1}{2}$ " per hour of this area is only 14,380 cubic yards per hour, hence the extreme discharge likely to pass down the water-course may be assumed to be about 30,500 cubic yards per hour under exceptionally heavy rainfalls.

5. The channel has, I find from the levels taken, a tolerably equal bed-fall of 6.17 feet in 445 yards, and thus the surface fall may in round numbers be taken at 25' per mile. The average width (of four sections) is 21 feet, and the depth to natural ground surface is nowhere less than 1' 6", hence 1' 6" of water could pass down the channel without flooding the village.

6. On one side for nearly its whole length the channel is revetted, on the other side the slope is steep. I have, therefore, calculated both sides as vertical.

7. $21' \times 1\frac{1}{2}' = 31.5$ square feet $= 3\frac{1}{2}$ square yards area, W. P. (vertical sides) $= 24'$, $\therefore$ H. M. D. $\frac{1.5}{24} = 1.31$. The vel. in yards per hour $= 1,100 \times \sqrt{25' \times 2 \times 1.31} = 8,910$.

8. $8,910 \times 3.5 = 31,185$ cubic yards per hour as the discharge which the channel could carry without flooding the village. In stating that 30,500 is the possible discharge I have given full value to all elements of calculation in favour of the villagers of Kottikulam.

9. In reporting on the matter before to the Superintending Engineer of the late 8th Division I did not propose any alterations to the two calingulahs as I considered the ryots cultivating under the tank might object. That which to me decisively points out the proper way of settling the long-standing dispute is the fact that there is a well-defined channel running through the village of

Proceedings of the Madras Government, Public Works Department
27th January 1873.

Kottikulam, whereas there is no channel at all below the tunnel (C in the sketch),

* The sketch referred to accompanied Colonel Roberts' letter, No. 3,708, dated 9th November 1872 (vide G. O. of 3rd December 1872, No. 2,823.

and all water passing over Calingulah B would flow over waste ground and the houses of the Karunykulam people. My objection to the backing up of the water above the bridge below B is that the road to the east of it is low and would be breached long before the water headed up sufficiently to discharge through the bridge.

10. The suit was transferred, on application of the Government Vakeel, from the District Munsif's to the Sadr Amin's Court and posted for hearing on the 27th of this month. I have informed the Government Vakeel that, having taken the levels and sections of the channel, I am prepared to tender them as evidence in the suit and to put forward the calculations I have given above.

11. The dispute regarding the disposal of the water from Calingulah B seems to have been carried on between these two sets of villagers for many years. The fact that this water, if not diverted into the water-course passing through Kottikulam, would damage the houses in Karunykulam is plain, whereas from my recent investigations I believe the existing channel will without damage pass all water likely to come into it from the tank as well as from its natural catchment basin.

12. The Government Vakeel tells me that the feelings of both parties are so embittered that no compromise would be accepted, nor do I see any ground on which to propose one.

13. I, therefore, propose, as above stated, to give evidence as to the levels and capacities of the channel, and will report the result of the suit to Government

14. Trusting that this course will be approved, I have the honour to be, etc.

No. 551.

ORDER THEREON, 27th January 1873, No. 268.

ESTABLISHMENT, No. 37.

UNDER the circumstances represented by the District Engineer of Tinnevely His Excellency the Governor in Council authorizes the defence of the suit.

(True Extract.)

Colonel, R. E.,

Secretary to Government.

To the District Engineer, Tinnevely.
.. Controller of Public Works Accounts.

Ed. A. S. Rodgers.

No 19. District Engineer's Office Tinnevely
Palamcottah 14th January 1873.

From, J. W. Randall Esquire
District Engineer
Tinnevely.

To. Colonel G. W. Walker. R. E.
Secretary to Government
R. W. D.

Sir, I have the honor with reference

Enclosure 1.
1. Plan.

to G. O. No 2823 of the 3rd December 1872 & the Memo of the Chief Engineer for Irrigation regarding the Kottikulam water dispute therewith published, to report that I have taken levels and sections of the channel which runs through the village of Kottikulam and the result is given below.

2. With regard to Para 2 of Major Oakes' Memo, I find that in roughly taking 2' as the depth which might pass over the two weirs, I overlooked the difference of level between the two, and that it is hardly likely

likely that even after excessive rain fall the quantity would be as large as I stated.

3. First as regards the Kaurimarkolam itself, I find that in the Irrigation Register the area of catchment is stated at $\frac{1}{2}$ square mile, it is entirely a rain fed Tank. For the purposes of calculation I will assume its catchment basin to be $\frac{3}{4}$ square mile, and supposing that when the Tank is full, a heavy fall of rain say 6" occurs and all runs off the ground.

(which is gravelly and rocky) in 24 hours the discharge from both Calingulaks would amount to $\frac{56,000 \times \frac{3}{4} \times 6}{24 \text{ hours}} = 16,133 \text{ Cyds. per hour.}$

4. In addition to the discharge from the Tank the Qday, (Local word for natural water-course) has to discharge ^{the} drainage from about the $\frac{1}{3}$ of square mile as shown in the accompanying plan traced from the Revenue Survey.

Survey Maps. A rain fall of $\frac{1}{2}$ " per hour off this area is only 14,380 Cyds. per hour, hence the extreme discharge likely to pass down the water course may be assumed to be about 30,500 Cyds. per hour under exceptionally heavy rain falls.

5. The Channel has I find from the levels taken, a tolerably equal bed fall of 6.17' feet in 445 yds; and thus the surface fall may in round numbers be taken at 25' per mile. The average width (of 4 sections) is 21 feet, and ^{the} depth to natural ground surface is nowhere less than 1' 6", hence 1' 6" of water could pass down the Channel without flooding the village.

6. On one side for nearly its whole length the Channel is levelled, on the other side the slope is steep. I have therefore calculated both sides as vertical.

7. $21 \times 1\frac{1}{2} = 31.5 \text{ square feet} = 3\frac{1}{2} \text{ Sq. yds.}$

qds area, H. P. (vertical sides) = 24', ∴
H. M. S. $\frac{31.5}{24} = 1.31$. The Vel. in qds per
hour = $1100 \times \sqrt{25' \times 2 \times 1.31'} = 8910$.

8. $8910 \times 3.5 = 31,185$ Cyds per hour
as the discharge which the channel could carry
without flooding the Village. In stating
that 30,500 is the possible discharge I have given
full value to all elements of calculation in
favor of the Villagers of Kotticolum.

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the Superintending Engineer of the late
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the Tanke might object. That which to
me decisively points out the proper way
of settling the long standing dispute, is
the fact that there is a well defined
channel running through the Village
of Kotticolum, whereas there is no channel
at

at all, below the Tunnel (C. in the sketch)
and all water passing over Calingulab B
would flow over waste ground and the
houses of the Kannykulam people. Along
Col. Roberts letter
No 3708 dated objection to the backing up of the water
9th Nov 1872, vide
50 of 3rd Dec 1872 above the Bridge below B is that the Road to the
east of it is low, & would be breached long before
the water heated up sufficiently to discharge
through the Bridge.

10. This suit was transferred on applica-
tion of the Government Vakeel from the
District Munsiff to the Sadr Ameen's
Court and — posted for hearing on the 27th
of this month. I have informed the Govt
Vakeel that having taken the levels and
sections of the Channel. I am prepared
to tender them as evidence in the suit, &
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14. Trusting that this course will be approved.

I have the honor to be
Sir

Your Most Obedt Servt
H. W. Russell
District Engineer
Trincomalee.

Public Works Department
 No. 268
 Proceedings of the Madras Government
 Read the following

From The District Engineer } H.E. No. 19 of 114th January 1931
 Tinnevely.

Under the circumstances, represented by the District Engineer of Tinnevely, His Excellency the Governor in Council authorizes the defence of the sub

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To The District Engineer
 Tinnevely
 - Contd. Mr. -

In-s. despatched to the D.E. on 27/1/73.
 P-C in toto on 11/2/73.

Received by the District Engineer
 for the District Engineer
 Tinnevely
 on 19/1/73
 H.E. No. 19 of 114th January 1931
 P.C. 11/2/73

Received by the District Engineer
 for the District Engineer
 Tinnevely
 on 19/1/73
 H.E. No. 19 of 114th January 1931
 P.C. 11/2/73

Received by the District Engineer
 for the District Engineer
 Tinnevely
 on 19/1/73
 H.E. No. 19 of 114th January 1931
 P.C. 11/2/73

No. 268-24th January 1931

No. 533

1931-32

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Mr 359

Govt. of 1873 Madras.

PUBLIC WORKS.

The District Commr
Sinnivelly

Dated

Recd.

Encl. /

G. O. 27th Jan 1873, No. 268.

Nos. 550 & 551

Water dispute at Kottikulam.

Authorizing the defences
of the tank in connection
with the water dispute
at Kottikulam, Sinnivelly
P.W.