

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following paper :—

No. 91 T.C.

Report to accompany estimate for preliminary investigation of the Ponneri Project.

In his letter No. V./7 T.C., dated 3rd June 1879, the Deputy Chief Engineer for Irrigation asked for a report on the proposal to restore the Ponneri reservoir and lead a channel to it from the upper anicut. Major Vibart added that the investigation of this project would not interfere with the much more modest project for restoring the tank so as to catch the local drainage of 80 to 100 square miles. There have been several reminders from the Chief Engineer, but nothing has been done beyond examining and taking levels of the tank, the general feeling of local officers being that the project was entirely visionary.

2. In the first place it is to be noted that the ideas of the officers who first mooted the project in regard to the supply in the Cauvery were either extremely erroneous or the ordinary supply in the river has greatly decreased. It would be altogether impossible now to take from the river a drop of water that is not in the strictest sense surplus. The records of the upper anicut for 1846 have been examined and it is found that the average number of days on which water has exceeded 7 feet level at the Cauvery dam is 32. Tanjore can often utilize the whole of a 7 feet Cauvery fresh after drought, but with this depth there is very much more passing over the upper anicut than can be drawn off at the lower anicut and elsewhere. For present purposes it may be assumed that there is a large quantity of water available whenever the freshes exceed 7 feet and that the average number of days in which this occurs is 32, but the number varies much in different years. It was 8 days in 1867 and 74 in 1882.

3. The objections to taking a channel from the upper anicut are many and serious—

(1) it could not be done without altering existing works and introducing complicated regulators ;

(2) the channel would have to be taken from the Iyar above the Peruvalai sluice and as the Peruvalai channel has a very slight fall, much slighter than would be required for a flood water channel, the latter would pass for a long distance either through valuable nunjei or have to be taken in deep cutting to get round it ;

(3) the channel would be nearly 70 miles long and cross the whole drainage of the country in that distance. The cross drainage works would be very expensive, and it would also have to be considered that the channel would have to be large since it would run for only 32 days a year and every unnecessary mile probably would entail an expense of Rs. 15,000.

4. Owing to the width of the irrigated tract north of the Coleroon, there is no favourable site for the head of a channel between the upper anicut and about the 33rd mile (west of Tirumalaivadi), but there seems good reason to hope that if a channel is taken off about this place it will command land higher than the Ponneri reservoir. It is to verify this expectation and to ascertain where reservoirs can be made with advantage that it is proposed now to employ a surveyor for a couple of months. It is evident that no project can be remunerative unless it is on a large scale. Since

the regulator across the Coleroon and the cross drainage works will cost the same whether the channel is large or small and land compensation, which will be another very heavy item, will be proportionately less for a large channel, it is anticipated that it can certainly not pay to make a channel of less capacity than 1,000 cubic feet per second which will give a discharge of 2,765 millions cubic feet and for this storage capacity of probably 2,000 millions would have to be provided. Whether the country is favourable for the construction of the large reservoirs required for this and what area of irrigable land will be commanded have yet to be ascertained.

5. There are wild legends about the former condition of the Ponneri reservoir and the irrigation under it, but the opinion has been expressed by competent officers that the reservoir was never completed and brought into use at all. It seems to me altogether probable that it was intended to supply it by the Ponneri channel and that it was discovered too late that the levels did not permit this being done. If the channel is cut from the Coleroon, the tank can be completed and made use of either as a principal or a subsidiary reservoir, and if the channel is not excavated it will still pay to complete the tank though not to the size originally contemplated. The free catchment is under 20 square miles, but even all the water from this is not available as streams passing through the tank feed tanks irrigating 250 acres. It is calculated that about 800 acres at the most can be irrigated at a cost of about Rs. 30,000.

TRICHINOPOLY,
16th April 1895.

(Signed) W. HUGHES,
Suptg. Engineer, VI Circle.

To the Chief Engineer for Irrigation for sanction with reference
to his No. 12 V.I., dated 21st September 1894.

No. 29 E.W.

Forwarded to the Chief Engineer, Public Works Department, for sanction of
Government to the establishment applied for.

CHEPÁK,
23rd April 1895.

(Signed) T. W. S. SMYTH,
for Chief Engineer for Irrigation.

ORDER—dated 4th May 1895, No. 1046 W., Public Works.

Sanction is accorded to the entertainment, for a period of two months, of a
surveyor on Rs. 100 and six lascars on Rs. 6 each per mensem in connection with the
investigation of the Ponneri project in the Trichinopoly division.

2. This sanction has been registered as Provincial No. 10 W. of 1895-96 and
classified as Establishment, Temporary.

(True Extract.)

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation.

" Superintending Engineer, VI Circle, with one enclosure,
" Examiner, Public Works Accounts.

Exd. C. A. Munisawmy
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1895} Madras.
PUBLIC WORKS.

Dated May, 4th.

Recd.

Encl.

G.O., 4th May 1895, No. 1046 W.

MAY.

Establishment

Sanction accorded to the entertainment, for a period of two months, of a surveyor on Rs. 100 and six lascars on Rs. 6 each per mensem in connection with the investigation of the Ponneri project, Trichinopoly division.

No 9/7c

Report to accompany Estimate for preliminary investigation of the Ponneri Project.

In his letter No. $\frac{V}{7-5c}$ dated 3^d June 1879 the Deputy Chief Engineer for Irrigation asked for a report on the proposal to restore the Ponneri Reservoir and lead a channel to it from the Upper Anicut. Major Vibart added that the investigation of this project would not interfere with the much more modest project for restoring the tank so as to catch the local drainage of 80 to 100 square miles. There have been several reminders from the Chief Engineer but nothing has been done beyond examining and taking levels of the tank, the general feeling of local officers being that the Project was entirely visionary.

2. In the first place it is to be noted that the ideas of the officers who first mooted the project, in regard to the supply in the Cauvery were either extremely erroneous or the ordinary supply in the river has greatly decreased. It would be altogether impossible now to take from the

the river a drop of water that is not on the strictest sense surplus. The records of the Upper Ancient for 1846 have been examined and it is found that the average number of days on which water has exceeded 7 ft. level at the Cauvery dam is 32. Tanjore can often utilize the whole of a 7 ft. Cauvery fresh, after drought, but with this depth there is very ^{much} more passing over the Upper Ancient than can be drawn off at the Lower Ancient and elsewhere. For present purposes it may be assumed that there is a large quantity of water available whenever the freshes exceed 7 ft. and that the average number of days in which this occurs is 32 but the number varies much in different years. It was 8 days in 1867 and 74 in 1882.

3. The objections to taking a channel from the Upper Ancient are many and serious.

(1) it could not be done without altering existing works and introducing complicated regulators.

(2) the Channel would have to be taken from the Lyar above the Peruvallai sluice and as the Peruvallai Channel has a very slight fall ^{of} ~~about 1/2 ft.~~ ^{less than 1/2 ft.} ^{required for} ^{for}

either through valuable mungji or have to be taken in deep cutting to get round it.

(3) the Channel would be nearly 70 miles long and cross the whole drainage of the country in that distance. The cross drainage works would be very expensive, and it would also have to be considered that the Channel would have to be large since it would run for only 32 days a year and every unnecessary mile probably would entail an expense of Rs. 15000.

4. Owing to the width of the irrigated tract north of the Coleroon there is no favorable site for the head of a Channel between the Upper Ancient and about the 33rd mile (west of Tirumalavadi) but there seems good reason to hope that if a Channel is taken off about this place it will command land higher than the Ponnéri Reservoir. It is to verify this expectation and to ascertain where reservoirs can be made with advantage that it is proposed now to employ a Surveyor for a couple of months. It is evident that no project can be remunerative unless it is on a large scale. Since the regulator across the Coleroon and the cross ^{weir} ^{supply in} ^{who will not} ^{has great} ^{rather the} ^{compensation} ^{which} would be also larger impossible

which will be another very heavy item will be proportionately less for a large channel. It is anticipated that it can certainly not pay to make a Channel of less capacity than 1000 C.F.S. which will give a discharge of 2765 Millions Cft and for this storage Capacity of probably 2000 Millions would have to be provided. Whether the country is favorable for the construction of the large reservoir required for this and what area of irrigable land will be commanded have yet to be ascertained.

5. There are wild legends about the former condition of the Ponneri Reservoir and the irrigation under it but the opinion has been expressed by Competent Officers that the reservoir was never completed and brought into use at all. It seems to me altogether probable that it was intended to supply it by the Ponneri Channel and that it was discovered too late that the levels did not permit this being done. If the Channel is cut from the Coleroon the tank can be completed and made use of either as a principal or a subsidiary reservoir, and if the Channel is not cut it will still pay to complete the tank as originally contemplated. The

The free Catchment is under 20 square miles but even all the water from this is not available as streams passing through the tank feed tanks irrigating 250 acres.

40 acres per
sq. m. is a
high duty.
Rural

It is calculated that about 800 acres at the most can be irrigated at a cost of about Rs. 30,000.

Supt. Engineer's office
Trichinopoly
16 April 1895.

W. Hughes
Superintending Engineer
Trichinopoly

17/4

To
Chief Engineer for irrigation
for sanction, with reference to
his No 12 VI dated 21.9.94.

267c
19 APR 1895

29 Ew. X

Forwarded to the Chief
Engineer P. W. D for
sanction of Government
to the establishment applied
for.

W. S. S. S. S.
To Chief Engineer for
Irrigation

Chapauk 3
23rd April 1895
Recd: 26.4.95

W

44.43
Recd 4/5

no

A

N^o 1046 W. dated 4th May 1895.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

From the Suptg. Engineer P. Circle No 91 T.C. d/16 April 1895
Endorsement thereon by the Chief Engineer for Irriga No 29 subd/23 April 1895

50

to
2 May

Sanction is accorded
to the entertainment for a
period of two months of a
Surveyor on Rs 100 and 6 lascars
on Rs 6 each per mensem in
connection with the investi-
gation of the Ponneri project
in the Trichinopoly Division

2. This sanction has been
registered as Provincial
No 10 W of 1895-96 and classi-
fied as Establishment, Tempo-
rary

Q 15

Chief Engineer for Irriga
S. S. P. Circle with 1 endor.
Supt P.W. Accts
(40-8,000-14-3-95.)

Cu

Copy
8-55

#6

Temporary Establishment
for the investigation of the
Pomero project, Trichinopoly
Dec

B

6

3256

Govt. of Madras.

PUBLIC WORKS.

Dated

Recd

Encl.

G.O. 4. May 1895 No. 1046a

Es. Tablis Luvu

sanction accorded to the
 attachment for a period
 two months, of a Surveyor
 Es. 100 and 6 lascars on
 6 each per mensem in
 connection with the inves-
 tigation of the Ponneri Project,
 Nellikuppam.

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