

(1) Number of pages 14(2) Date of repair 14-3-44

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1059	Press
276-77	Mis-
Dated 22. 4.	1870

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
22nd April 1870.*

Read the following papers :—

No 276. From the Superintending Engineer, 5th Division, to the Secretary to Government, Public Works Department, dated Cuddalore, 31st March 1870, No. 222.—

I HAVE the honour to forward, for the sanction of Government from the next year's Reserve under "Agricultural,"

Two Plans	two estimates with plans and specifica-
One Survey	tions, for the under-mentioned works
Two Estimates	required for the safety of the village of
„ Specifications	

Tiruvadathoray in the Virdachellum Talook of South Arcot.—

- | | |
|--|------|
| (1.) Constructing a masonry groyne of 60 feet in the Vellaur | rs. |
| river | 590. |
| (2) Do. do. of 36 feet | 420. |

Total. 1,010.

2. In G. O , No. 1,528, of the 21st May 1867, an estimate of Rupees 1,135 was sanctioned for constructing two Vaganays and cutting a new channel for the protection of this village. The works were carried out, but having been much damaged by a heavy flood in January 1869, failed to produce the desired effect. There was another extraordinary high flood in the river in November last, and the bank has been carried away to within six yards of the houses and one yard of a choultry. As heavy floods are of frequent occurrence in this river, it will not be of any use to repair the damaged Vaganays, and it is therefore proposed to build masonry groynes.

No 78.

No 277. Note by the Acting Chief Engineer for Irrigation.

THE rectification of the Vellaur at Tiruvadathoray does not appear to me to be a work which should be provided for out of the ordinary grant under Agricultural. The village has been endangered by an alteration in the bed of the river due to natural causes, and, if it is incumbent on the Government to protect the village site, it would seem that the expenditure necessary should be made under the head "Miscellaneous Public Improvement."

2 With regard to the particular works proposed, namely, two masonry groynes, it may be remarked that the first and necessary effect of such works is to produce an increased velocity at their outer ends, and, unless the foundations at the nose are carried below the greatest depth to which scour can extend, the destruction of the whole groyne would occupy but a short time.

3. To obtain permanent benefit the sand-bank on the right side of the river opposite the village will have to be removed, and this can most readily be effected by diverting the current against it. Groynes will be required at C. and D. on the survey, but they should be carried out as shown in pencil up to the proper alignment for the left bank, and they should be constructed so as to be as little liable to be undermined as may be. Stone is the best material, but probably this is not obtainable and, if so, cubes will have to be used. The mass of each groyne may be made of earth well rammed, and this core should be covered with cubes to a

*Proceedings of the Madras Government, Public Works Department,
22nd April 1870.*

thickness of 2 feet: the nose of the groyne should be made entirely of cubes for a length of 12 feet, and there should be a protecting apron round the nose about 8 to 12 feet wide. The top line of the groynes may slope from about 1 foot above flood-level at the bank to 2 or 3 feet above bed-level at the outer end. Spare cubes should be provided to replace those which may fall in or be displaced.

4. In order to ensure the removal of the sand bank, it will probably be necessary to construct temporary groynes, c, d, e, f, in the positions shown on the survey, and these may be made of palmyras and brushwood, after the manner common in Tanjore.

5. Cross-sections of the river are essential to enable any one not intimately acquainted with the site to say what the exact details of the works should be, and no such sections appear to have been taken. It would seem to be advisable to rectify the course of the river for some distance above Tiruvadathoray. there will always be a strong set against the left bank near that village, so long as the course of the river from Chennanoor is what it is at present

FORT ST GEORGE,

4th April 1870.

(Signed)

J. MULLINS, Major, R E,

Acting Chief Engineer for Irrigation

To the Secretary to Government, Public Works Department

No 278.

ORDER THEREON, 22nd April 1870, No 1,053

IRRIGATION, No 17.

The Superintending Engineer of the 5th Division will be requested to report whether there are any special circumstances which would make it proper for the Government to provide for the protection of the village of Tiruvadathoray from Imperial Funds, and, if so, whether this part of the river has been in any way affected by, or requires to be managed in connection with, works of Irrigation. If the former question be answered in the negative, the Government consider that the cost of the necessary protective works will have to be met from Local Funds

2 The attention of the Superintending Engineer will be requested to the remarks of the Acting Chief Engineer for Irrigation with regard to the arrangement of the works required.

(True Extract)

Major, R E,

Acting Joint Secretary to Government.

To the Superintending Engineer, 5th Division.
" Revenue Department

End E C Shunker.

V: 78

Note by the Acting Chief Engineer for Irrigation

The rectification of the Vellaur at Tiruvada-
thoray does not appear to me to be a work which
should be provided for out of the ordinary grant
under Agricultural. The village has been endanger-
ed by an alteration in the bed of the river due to
natural causes and, if it is incumbent on the
Government to protect the village site, it would
seem that the expenditure necessary should be
made under the head "Miscellaneous Public
improvement"

2 With regard to the particular works
proposed, namely 2-masonry groynes, it may
be remarked that the first and necessary effect
of such works is to produce an increased velocity
at their outer ends and, unless the foundations at
the nose are carried below the greatest depth
to which scours can extend, the destruction of the
whole groyne would occupy but a short time.

3 To obtain permanent benefit the
sand bank on the right side of the river opposite
the

the village will have to be removed, and this can most readily be effected by diverting the current against it. Groynes will be required at C & D on the Survey, but they should be carried out as shown in pencil up to the proper alignment for the left bank, and they should be constructed so as to be as little liable to be undermined as may be. Stone is the best material, but probably this is not obtainable - and, if so, cubes will have to be used. The mass of each groyne may be made of earth well rammed, and this core should be covered with cubes in a thickness of 2 feet. The nose of the groyne should be made entirely of cubes for a length of 12 feet, and there should be a projecting apron from the nose about 8 to 12 feet wide. The top line of the groynes may slope from about 1 foot above flood level at the bank to 2 or 3 feet above bed level at the end. Spare cubes should be provided to replace those which may fall in or be displaced.

4. In order to ensure the removal of the sand bank, it will probably be necessary to construct temporary groynes, c, d, e, f in the positions shown on the survey, and these may be made of palm-branches and brushwood, after the manner common in Tanjore.

5. Cross sections of the river are essential to enable any one not intimately acquainted with the site to say what the exact details of the works should be, and no such sections appear to have been taken. It would seem to be advisable to rectify the course of the river for some distance above Tiruvadaithurai. There will always be a strong set against the left bank near that village; so long as the course of the river from Chennur is what it is at present.

J. S. George
4 April 1870
Volundulloo
Acting Chief Engineer for Irrigation
to
The Secretary to Government
P. W. Department

Superintg: Engineer's Office, 5th Division,
No 222 Cuddalore, 31st March 1890.

From, The Superintending Engineer,
5th Division.

To, The Secretary to Government,
Public Works Department.

Sir,

I have the honor to forward,
for the sanction of Government, from the
1881 year's Reserve under Agricultural,
two estimates with plans & Specifications,
for the undermentioned works required
for the safety of the village of Tiruv-
atharay in the Virdachellam taluk of
South Arcot.

1. Constructing a masonry groyne
of 60 feet in the Vellur river Rs. 590-0-0
 2. — ditto — ditto of 36 feet " 420-0-0
- Rs. 1010-0-0

2. In G.O. No 1528 of the 21st of May
1864 an estimate of Rspees 1135 was
sanctioned for constructing two Vaganays
and cutting a new channel for the protec-
tion of this village. The works were

Recd 4th April 1890
Date 5th April 1890
Recd 5th April 1890
1-2-1890
Note on estimate for Vellur
1010 for constructing two
Vaganays in the
Vellur river at Tiruv-
atharay in the Virdachellam
taluk of South Arcot
No 1528 of 21st May 1864

carried out, but having been much
damaged by a heavy flood in January
1864, failed to produce the desired effect.
There was another extraordinary high flood
in the river in November last, and the
banks have been carried away to within
six yards of the houses and one yard of
a choultry. As heavy floods are of frequent
occurrence in this river, it will not be of
any use to repair the damaged vaganams,
and it is therefore proposed to build
masonry groynes.

I have the honor to be
Sir,

Your most obedient servant

Edwd Colvill R.E.,
Superintending Engineer.

M. 1077 Jett
From The Supty. Engrs.,
5th Division
To The Secty. to Govt.,
P. W. Department,
Madras.

M. 1352/70.
Dated 31st March 1870.
Recd. 4th April
Enclosures 4.

N^o 222
Goverment Thiruvada-
thoray.

Forwarding for sanction
two estimates for Rs 1010.
for constructing two masonry
gropes in the Vellur river
at Thiruvada-thoray in the
Vidachellum Taluk of
S. Arcot, for the safety
of the village.

M. 1059-22 April 70
J. H. S. S. S.

P. W. Department.

M. 1059
Proceedings of the Madras Govt.

Under date the 22 April 70

Read the following

From The Supty. Engineer 5th Division / P. W. D. No 222 of 31st March 1870
From The Acting Chief Engr. P. W. D. No 78 of 4th April 70
Engrs. for Irrigation

The Supty. Engineer of
the 5th Division will be re-
quested to report whether
there are any special cir-
cumstances, which would
make it proper for the Govt.
to provide for the protection
of the village of Thiruvada-thoray
from Imperial funds; and,
if so, whether this part of the
river has been in any way
affected by, or requires to be
managed in connection with,
works of Irrigation. If the

former

former questions he answered in the negative, the Govt. considers that the cost of the necessary protective works will have to be met from Local Funds.

2. The attention of the Subj. Engineer will be requested to the remarks of the Acting Chief Engineer for Irrigation with regard to the arrangement of the works required.

me 5/4/70

✓

2 Plans Survey Ant. to the
Ant. Aug 25th 1770
on Dec 25th 1770 - 10 May 1770

2 Estimates do - - - do - for 1767/70

To the Safesinger 5th Jan ✓
" Rev. Wept. ✓

Rec'd 25/4/30.

Crs 1309 & 1352
Govt. of 1870: Madras.

PUBLIC WORKS.

^{to} The Superintending Eng^r
5th Division

Dated

Recd.

Enc. 8

G. O. 22nd Apr. 1870. No. 1659

No. 276-277

Books Papering orders on papers
relative to the works required for
the safety of the village of Tiruvai-
katturay in the Andasellam
Taluk of the S. Arcot D^o.