

(1) Number of pages _____

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MADRAS RECORD OFFICE

Government of Madras

Public works. DEPARTMENT

G.O. No.	2031	Press
B.P. No.		Mis.
605-605A		
606		
Dated	28-7-1894	195

Not to be folded or roughly handled

• Read the following papers:—

No. 605. From G. S. SAGE, Esq., District Engineer, South Arcot, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Camp Goverput, 11th June 1874, No. F-18.

I HAVE the honor to report that the Pooniar river came down on 6th May in very heavy fresh; no person recollects its having come down so heavily before, and the result has been very heavy damage to irrigation works and roads.

2. Regarding the damage to irrigation works, which is the subject of this report and which should have been sent in long ago, but having only just joined the district I thought it necessary to see the more important works before reporting.

3. Commencing with the Pooniar river:—

The Pooniar anicut near Trickalore is all safe as far as can be seen, but the apron is still under water and cannot be examined properly; on north bank, the Pombay channel which took off close to the anicut wing wall, the head sluice to this channel has been completely destroyed and channel washed away for a distance of about three quarters of a mile, there was an embankment from the anicut wing to this sluice and thence to the head sluice of Aramullee channel; the river appears to have topped this embankment and then cut it away towards the sluice, which fell forward and acted as a protection to the anicut wing, or it would have gone. Surveys and levels are being made, also estimate for repairs, and materials are being collected for the purpose; at present there is too much water in river to do any work, but in course of a week I hope the repairs will be in full swing. I may mention here that at anicut river was never known to have risen more than three feet; on this occasion it rose to 5.77 above crest, or nearly double, but it rose higher at the Maradur channel head-sluice, which is the southernmost channel, near which the water was held up by the bay formed between anicut and sluice; at this sluice it rose to 7.36 above crest and passed over part of the road to anicut to a depth of 11½ inches, and but for the exertions of the Superintendent and Kotens we should have had damage here also. The bay on this side is smaller than the bay on north side, so water must have gone over embankment at least 1¼ to 1½ feet in depth.

4. About four miles below the Pooniar anicut an embankment, known as the Coryaur embankment, placed across the Coryaur where it bifurcates from Pooniar, has been completely destroyed, and the south bank of river very much eroded, so much that where there were fields and cultivation there is now nothing but sand, the surface having been cut away. The causes of the Coryaur embankment being destroyed were two:—first, that the whole force of the heavy flood was directed on to the embankment by a reef of rocks, (which you noticed when at the spot,) which I have ordered to be removed; second, there is no doubt from the marks of debris brought down by river, that the embankment was overtopped by flood. The Mallataur channel, which passes through this portion, has been completely obliterated, not a vestige of channel or spoil banks remains; through this embankment breaching the Pooniar water found its way down the Malataur into the Guddelum river, where much damage has been done and will be noted further on;

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23rd July 1874.*

I may mention but for this relief to the flood water of Pooniar the large bridge across that river near Munjacoopum must have been carried away, as it rose to about 2½ feet below intrados of arches; as far as it can be examined no damage appears to have been done; when fresh subsides it will be carefully examined, and, if necessary, report sent in.

5. On both banks of the Pooniar river there are numerous river channels, about 70; of these every one has been more or less damaged and heads destroyed and silted up. One, the Akkadavelly supply channel, is entirely obliterated, and the tank breached in nine places.

6. The new Oopalavady channel, near Munjacoopum, which was in progress, has been breached in several places and channel silted up for a distance of about half a mile to a depth of from one to half a yard, the arch of an aqueduct which was only keyed the night before the flood came down has fallen; at the head sluice of this channel the water went over it to a depth of 4.27 feet.

7. With reference to above, the channel heads and other damages are being corrected as quickly as possible to prevent detriment to the cultivation.

8. On the Guddelum river the repairs (which you saw) going on to Trivady anicut have been destroyed, but an embankment has been put up and irrigation is not stopped, the repairs are again in hand; water rose to level of top of wing walls of anicut; another 6 inches must have caused serious damage to, if not the destruction of, the anicut.

9. The Vanamadavy anicut, the rough stone apron, has been a good deal destroyed, I have ordered to be repaired at once; the water rose to within 1 inches of top of wing walls.

10. The Trivandipooram anicut is all right, except a little repair required to apron.

11. The river channels on this river, I am glad to say, are all safe.

12. I have directed bench marks of this fresh to be fixed wherever it was seen, or can be traced, for record.

13. I would here request, if possible, that an additional Overseer, a good man used to work, and knowing Tamil, be sent for employment in No. 1 Range on these repairs, as the Taluq Overseers have now with their ordinary work more than they can do.

14. The whole of the above damages are in No. 1 Range, which is fortunate in having Mr. Wiffen as Range Officer; in No. 2 a good many tanks have breached, but I have not heard of any damage in No. 3 Range.

No. 416-A.

Note by the Chief Engineer for Irrigation.

The report from the District Engineer, South Arcot, shows that the floods caused by the storm of the early part of last month in the South Arcot District were unusually severe, and that very considerable injuries have been sustained by irrigation works.

2. In carrying out repairs it will be necessary to guard as far as possible against future accidents from similar or even greater floods. At the Pooniar

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23rd July 1874.*

anicut near Trickalore the wing walls of the anicut, the roadways of the several head sluices, and the flood banks should be raised to 11 feet above the anicut crest.

3. The Coryaur embankment has only recently been constructed on the sanction given in the order as per margin. It should be reconstructed at a level 4½ feet above that reached by this flood. It will further be necessary to ascertain what embankments are required to this and other rivers in the district to prevent head works and channels being turned, and the serious and wide-spread damage resulting from flood waters getting entirely away from their own proper line of outfall. The space on the Pooniar side of the Coryaur embankment should be planted up to the proper alignment of the river with nanul at the first favorable opportunity, the cost being met from Agricultural Repair Funds.

4. The attention of the District Engineer should be given to the provision of head sluices to all open river channels, the roadways or platforms of such sluices being placed 4 feet above maximum recorded flood level; and where there are no continuous river embankments, the channel banks should be carefully connected with such sluices.

5. The Oopalavady channel head sluice roadway should be raised to 4 feet above flood level.

6. The wing walls of the Trivady anicut on the Guddelum should be raised 4 feet, and should be connected with ground well above maximum flood level by embankments. The right wing was turned in 1873, and was under repair in February last.

7. The wing walls of the Vanamadavy anicut should likewise be raised 4 feet, and be connected with high ground by flood banks of the same height.

8. The record of flood marks, as ordered by Mr. Sage, will be of much importance, as it will be several years before all the work that this flood has demonstrated to be necessary can be completely carried out, and it is very necessary that all officers when going about the country should have before them the visible record of such floods, as then the requirements of works are much more likely to attract attention.

9. The assistance asked for by the District Engineer in paragraph 13 of his letter, viz., the services of an Overseer of experience, is very moderate. Indeed, I would recommend that, if possible, a Supervisor and a couple of Overseers should be made available, and it will doubtless be highly advantageous, financially, if Mr. Sage's hands can be adequately strengthened, because, first, revenue will be saved, and, in the next place, money will not be wasted.

OOTACAMUND,
18th June 1874.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 606.

ORDER THEREON, 28th July 1874, No. 2,031.

IRRIGATION, No. 55.

The report of the District Engineer, South Arcot, on the results of the floods in the Pooniar and Guddelum in the early part of May is clear and definite, and it is evident that a very large amount

*Proceedings of the Madras Government, Public Works Department,
23th July 1874.*

of repair work will have to be executed within the next few months, in order to prevent material loss of revenue and to provide for the adequate supervision of expenditure. His Excellency the Governor in Council resolves, therefore, to place at Mr. Sage's disposal, for the next six months, the services of Mr. Supervisor Baker from the expiration of his privilege leave. Permanent Overseers are never available for transfer from one district to another; but in G. O., No. 1,787, of 3rd July, the District Engineer has already been instructed to retain for irrigation repairs the extra Overseers allowed for famine works.

2. The District Engineer's attention will be called to the remarks of the Chief Engineer for Irrigation, in the note above recorded, on the requirements of the works referred to, and on the subject of embankments for confining floods to their proper lines of outfall.

(True Extract.)

Lieut.-Colonel, R.E.,
Joint Secretary to Government.

*M. No. F
18*

*District Engineer's Office, Sec.
Camp, Government 11th June 1874*

From,

*The District Engineer, Sec.
The Chief Engineer for
Irrigation.*

Sir,

*I have the honor to report that
the Ponnai River came down on 6th May
in very heavy fresh, no person recollects
its having come down so heavily before,
and the result has been very heavy damage
to irrigation works and roads.*

*2 — Regarding the damages to irri-
gation works which is the subject of this
report, and which should have been sent
in long ago; but having only just joined the
District I thought it necessary to see the
more important works before reporting.*

*3 — Commencing with the Ponnai River,
The Ponnai ament near Trichalore
is all safe as far as can be seen, but the
apron is still under water and cannot be
examined properly; on North bank, ~~the~~
the Pombay channel which took off close
to the ament wing wall, the head sluice
to this channel has been completely destroy-
ed and channel washed away for a distance
of about 3/4 of a mile, there was an embank-*

ment from the ancient wing to this sluice
and thence to the Head Sluice of the main
channel; the river appears to have topped
this embankment and then cut it away to
wards sluice which fell forward and acted
as a protection to the ancient ~~sluice~~ ^{or it would}
have gone. Surveys and levels are being made,
also estimate for repairs, and materials are
being collected for the purpose, at present
there is too much water in river to do any
work but in course of a week I hope the
repairs will be in full swing. I may men-
tion here that at ancient Sluice was
never known to have risen more than 3 $\frac{1}{2}$ ft.
on this occasion it rose to 5.77 above crest and
nearly doubled, but it rose higher at the Ma-
-~~ladu~~ channel Head Sluice which is the
southern most channel, near which the
water was held up by the bay formed be-
tween ancient and sluice, at this sluice it
rose to 7.36 above crest and passed over
part of the road to ancient to a depth of
11 $\frac{1}{2}$ inches, and but for the exertions of the
Superintendent and others we should have
had damage here also. The bay on this side
is smaller than the bay on north side,
so water must have gone over embankment
at least 1 $\frac{1}{4}$ to 1 $\frac{1}{2}$ feet in depth.

4. — About 4 miles below the Pomar
ancient an embankment known as the
Coryau

13 2
Coryau embankment placed across the
Coryau where it bifurcates from Pomar
has been completely destroyed, and the
south bank of river very much eroded, so
much that where there were fields and
cultivation there is now nothing but sand
the surface having been cut away. The Ma-
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where much damage has been done and
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near Munjacopam must have been car-
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70, of these every one has been more or less
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is entirely obliterated, and the Tank breach-
ed in 9 places.

6. — The new Copalavady channel near
Munjacopam which was in progress has
been breached in several places and channel
silted

No. 4168
 Note by the Chief Engineer for Irrigation

The report from the District Engineer, South West, shows that the floods caused by the storm of the early part of last month in the South West District were unusually severe, and that very considerable injuries have been sustained by irrigation works. 2. In carrying out repairs it will be necessary to guard as far as possible against future accidents from similar or even greater floods. At the Pomiar aicut near Sikafore the wing walls of the aicut cut, the roadway of the several head sluices, and the flood banks should be raised to 11 feet above the aicut crest.

3. The Coyaur embankment has only recently been constructed on the sanction given in the order as per margin. It should be reconstructed at a level $4\frac{1}{2}$ feet above that reached by this flood. It will further be necessary to ascertain what embankments are required to this and other rivers in the District to prevent head works and channels being

N-2049 dated
 16 August 73

1081
 District Engineer
 Chief Engineer
 for Irrigation

Part 1147
 Part 137
 June 1874

18

Referring to the
 damage done to the
 m. of 160 Gauge & aicut

114303/74

Chairs

being turned, and the serious and wide spread damage resulting from waters getting entirely away from their own proper line of outfall. The space on the Ponnai side of the Coygau embankment should be planted up to the proper alignment of the river with manul, at the first favourable opportunity, the cost being met from agricultural repair funds.

4. The attention of the District Engineer should be given to the provision of head sluices to all open river channels, the roadway or platform of such sluices being placed 4 feet above maximum recorded flood level; and, where there are no continuous river embankments, the channel banks should be carefully connected with such sluices.

5. The Popalavady channel head sluice roadway should be raised to 4 feet above flood level.

6. The wing walls of the Rivaldy ament on the Guddalchem should be raised 4 feet and should be connected with ground well

with above maximum flood level by an embankment. The right wing was turned in 1873, and was under repair in February last. 7. The wing walls of the Vana-madavy ament should likewise be raised 4 feet, and be connected with high ground by flood banks of the same height.

8. The record of flood marks as ordered by Mr. Loe will be of much importance, as it will be several years before all the work that this flood has demonstrated to be necessary can be completely carried out, and it is very necessary that all officers when going about the country should have before them the visible record of such floods, as then the requirements of works are much more likely to attract attention.

9. The assistance asked for by the District Engineer in para 13 of his letter, viz the services of an overseer of experience, is very moderate. Indeed I would recommend that if possible a supervisor & a couple of overseers should be

Public Works Department
 Proceedings of the Madras Government
 From the Deputy Secy (P. & C. Secy) 18 June 1874
 to Chief Eng for Mad. (P. & C. Secy) 18 June 1874
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P. W. 1874, Sep 6.
 No. 4303

From No. 4168.
 The Chief Eng. for Irrigation

Da 18 June 1874
 Rd 13 July 1874
 E. I.

Note on the
 report of damages
 by recent floods
 to irrigation works
 in N. & S. Range of
 the South Arcot
 District -

G.O. No. 2031.289.74

Arch

The report of the
 District Engineer South
 Arcot on the results
 of the floods in
 the Pooniar and
 Gundalur in the
 early part of May
 is clear and definite,
 and it is evident
 that a very large
 amount of repair
 work will have
 to be executed with-
 in the next few
 months, in order to
 prevent material
 loss of Revenue
 and to provide
 for the adequate
 supervision of expenditure
 His

Md
 18/7

His Excellency the
Governor in Council
resolves therefore to
place at Mr. Lavis's
disposal for the
next 6 months the
services of Mr. Super-
visor Baker from
the expiration of
his Privilege leave.

(25th July.)

Permanent Overseers
are not accountable
for transfers from
one district to another.
This is in S.O. No. 1787
of 3rd July. The D.S. has already been in-
structed to return for Migration Reports.
2. The District In-charge Overseers
whose attention will be called to the
remarks of the
Chief Clerk for Mi-
gration in the note
above recorded on
the requirements of
the works referred
to, and on the sub-
ject of embank-
ments for confining
floods to their
proper

proper lines of
outfall.

24/6/74

EMW

To the Chief Clerk for S.O.
S. E. S. Great
Controller
S. Capins despatch 3/8/74.

...the ...

Cir 9/1/74 Retd 10/1/74

1303
Govt. of 1874 Madras.
PUBLIC WORKS.

To
The Chief Engineer
Irrigation

Date

Recd.

Recd. /

G. O. 18 July 1874 No. 2031

Nos. 605-606.

Irrigation Works - South Arcot &

Passing orders on
note by the Chief Engineer
for leave on the report
of the Chief Engineer relating
to damages caused
to certain Irrigation Works
by recent floods and
placing the services of Mr.
Superintendent Baker for the next
six months from the expiration
of his present leave as the
deputy Chief Engineer to be
utilized in the supervision of the
works.