

Public Works (1898.) Department.

G.O., No. 434-59

DATED 3 June '98

[Despatch Abstract.]

Outlet Sluice. Estimate of Rs. 12530 for Constructing an - of 20 vents at 89th mile Buckingham Canal, Chingleput Dist. Sanctions and a copy of the Pros: order to be forwarded to the Govt of Madras.

Outlet Sluice. Forwarding copy of Pros: sanctioning an estimate of Rs. 12530 for Constructing an - of 20 vents at 89th mile, Buckingham Canal, Chingleput Dist.

90/11
25/5/98
25/5/98
Indexed.

BACK PAPERS.

FURTHER PAPERS.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.
PUBLIC WORKS.

Recd.

Regd.

} 1898.

Enclosures

Spare copies

G.O., Nos. 434, 435 I., 3rd June 1898.

JUNE.

Outlet Sluice

Forwarding copy of Proceedings sanctioning an estimate of Rs. 12,530 for constructing an — of 20 vents at 89th mile, Buckingham canal, Chingleput division.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers:—

From Colonel C. C. RAWSON, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepāk, 26th April 1898, No. 152 E.I.

I have the honour to submit, for sanction, the enclosed plans and estimate, amounting to Rs. 10,180, for constructing an outlet sluice of 20 vents at 89th mile on the Buckingham canal.

2. The object and necessity for the proposed work is explained in the report which accompanies the estimate.

ENCLOSURE.

REPORT—Outlet of 20 vents in Mile 89th of North Canal.

For the purpose of providing sufficient escape in the Swarnamuki-Kandaluroo reach of canal, 76th to 90th mile, it is proposed to build a 20-vent masonry outlet in the 89th mile. This reach is subject to very heavy floods when it happens that the Sullacalva breaches into the canal, this flood rising in 1893 to as much as M.S.L. + 9 feet in canal.

2. There is a ground flush escape provided in the east bank in 76/IV—750 feet long. This is at the Swarnamuki end. This escape is considered not sufficient to pass off the heavy flood in canal, so it is considered essential that this outlet be built at the north or Kandaluroo end.

3. Hitherto it was intended to pass off floods at this end of the reach through old breaches in both banks of canal between 89th and 90th miles. These breaches occurred in 1893, when the heavy flood noted above passed through the canal and when the Kandaluroo attained its highest known flood of M.S.L. + 6.75 feet. These breaches are at present closed by low bunds sufficiently high to retain high tide water in canal. On the completion of the outlet and after the Sullacalva is made safe, all these breaches can be closed and banks raised to 3 feet above M.F.L. in the Kandaluroo, thus effectually preventing high river floods entering canal and turning the lock. Until this Sullacalva is made safe, these breaches will act as further safety valves, in times of heavy canal flood. It is, however, intended at present to close effectively one low gap just east of the lock. This can safely be done as soon as the outlet is built. This gap is a source of danger to the lock being too near its east wing. The estimate for closing this gap will be sent in under agricultural upkeep of banks.

4. At mile 89, west side, is the head of the old canal. This gap is bunded across by a low bund which often breaches and empties the canal reach to low tide level. This gap will now be effectually closed and the cost is included in the present estimate for the outlet. The present outlet is placed 200 feet north of this gap, as it would be more expensive to have built the outlet in the gap owing to baling cross bunds, &c., charges being heavy.

5. The height of the existing east and west banks ranges from M.S.L. + 7 to 8 feet. The sill of the outlet is placed at M.S.L. + 2.0 feet or ordinary high tide level in the canal. There is only a margin of 5 or 6 feet from sill to top of bank. This height is not sufficient to work shutters with a screw gearing without unduly raising the outlet. It is therefore designed to put swing shutters, as there will be a sufficiently high head in canal during floods to freely open the shutters and secure an effective discharge. The outfall of the outlet will be into the old canal. The area of effective discharge will be about $20 \times 6 \times 2\frac{1}{2} = 300$ square feet. It will not be advisable to put in heavier swing shutters.

6. The pattern of outlet is of the standard design for such in the Buckingham canal and will, in the present instance, answer well.

7. The foundation and walls will be of Surki concrete, and floor and coping cement concrete—all exposed parts to be plastered with cement; arches brick in Surki mortar—pivot stones cut granite in cement—swing shutters of the pattern used in the canal.

8. The rates are the same as were paid for in the adjacent Kandaluroo lock.

(Signed) H. M. BOND,
Assistant Engineer.

(Signed) J. P. DAVIDSON,
Ex. Engineer, Chingleput Dn.

No. 157 I.

Note by the Chief Engineer for Irrigation.

The accompanying estimate, amounting to Rs. 10,180, submitted by the Superintending Engineer, V Circle, provides for constructing an outlet sluice of 20 vents at 89th mile on the Buckingham canal.

2. The estimate may be sanctioned.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

13th May 1898.

ORDER—No. 434 I., dated 3rd June 1898.

The following estimate is sanctioned:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which Capital and Revenue Accounts are kept.
Buckingham Canal.
Open Capital Account.
Northern Section.
Chingleput Division.
I. Works.
2. Main Canals and Branches.
6. Other Cross Drainage Works.
Constructing an outlet sluice of 20 vents at 89th mile.

Estimate—	Rs.
I. Works	10,180
II. Establishment	2,341
III. Tools and plant	9
Total	12,530

2. This sanction is registered as No. 41 I. of 1898-99, and will expire on the 31st March 1900.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India for information.

[Here enter No. 435 I., dated 3rd June 1898.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, V Circle, with twelve enclosures.
" Examiner, Public Works Accounts.

No. 434 I., 3RD JUNE 1898.

ENDORSEMENT—No. 435 I., dated 3rd June 1898.

Forwarded.

(By order.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.IRRIGATION.
ACCOUNT.Government {1898} of Madras.
PUBLIC WORKS.

Recd.

Enclosures

Regd.

1898.

Spare copies

G.O., No. 434 I., 3rd June 1898.

JUNE.

Outlet Sluice

Estimate of Rs. 12,530 for constructing an — of 20 vents at 89th mile, Buckingham canal, Chingleput division, sanctioned, and a copy of the Proceedings ordered to be forwarded to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

From Colonel C. C. RAWSON, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepāk, 26th April 1898, No. 152 E.I.

I have the honour to submit, for sanction, the enclosed plans and estimate, amounting to Rs. 10,180, for constructing an outlet sluice of 20 vents at 89th mile on the Buckingham canal.

2. The object and necessity for the proposed work is explained in the report which accompanies the estimate.

ENCLOSURE.

REPORT—Outlet of 20 vents in Mile 89th of North Canal.

For the purpose of providing sufficient escape in the Swarnamuki-Kandaluroo reach of canal, 76th to 90th mile, it is proposed to build a 20-vent masonry outlet in the 89th mile. This reach is subject to very heavy floods when it happens that the Sullacalva breaches into the canal, this flood rising in 1893 to as much as M.S.L. + 9 feet in canal.

2. There is a ground flush escape provided in the east bank in 76/IV—750 feet long. This is at the Swarnamuki end. This escape is considered not sufficient to pass off the heavy flood in canal, so it is considered essential that this outlet be built at the north or Kandaluroo end.

3. Hitherto it was intended to pass off floods at this end of the reach through old breaches in both banks of canal between 89th and 90th miles. These breaches occurred in 1893, when the heavy flood noted above passed through the canal and when the Kandaluroo attained its highest known flood of M.S.L. + 6.75 feet. These breaches are at present closed by low bunds sufficiently high to retain high tide water in canal. On the completion of the outlet and after the Sullacalva is made safe, all these breaches can be closed and banks raised to 3 feet above M.F.L. in the Kandaluroo, thus effectually preventing high river floods entering canal and turning the lock. Until this Sullacalva is made safe, these breaches will act as further safety valves, in times of heavy canal flood. It is, however, intended at present to close effectively one low gap just east of the lock. This can safely be done as soon as the outlet is built. This gap is a source of danger to the lock being too near its east wing. The estimate for closing this gap will be sent in under agricultural upkeep of banks.

4. At mile 89, west side, is the head of the old canal. This gap is banded across by a low bund which often breaches and empties the canal reach to low tide level. This gap will now be effectually closed and the cost is included in the present estimate for the outlet. The present outlet is placed 200 feet north of this gap, as it would be more expensive to have built the outlet in the gap owing to baling cross bunds, &c., charges being heavy.

5. The height of the existing east and west banks ranges from M.S.L. + 7 to 8 feet. The sill of the outlet is placed at M.S.L. + 2.0 feet or ordinary high tide level in the canal. There is only a margin of 5 or 6 feet from sill to top of bank. This height is not sufficient to work shutters with a screw gearing without unduly raising the outlet. It is therefore designed to put swing shutters, as there will be a sufficiently high head in canal during floods to freely open the shutters and secure an effective discharge. The outfall of the outlet will be into the old canal. The area of effective discharge will be about $20 \times 6 \times 2\frac{1}{2} = 300$ square feet. It will not be advisable to put in heavier swing shutters.

6. The pattern of outlet is of the standard design for such in the Buckingham canal and will, in the present instance, answer well.

7. The foundation and walls will be of Surki concrete, and floor and coping cement concrete—all exposed parts to be plastered with cement; arches brick in Surki mortar—pivot stones cut granite in cement—swing shutters of the pattern used in the canal.

8. The rates are the same as were paid for in the adjacent Kandaluroo lock.

(Signed) H. M. BOND,
Assistant Engineer.

(Signed) J. P. DAVIDSON,
Ex. Engineer, Chingleput Dn.

No. 157 I.

Note by the Chief Engineer for Irrigation.

The accompanying estimate, amounting to Rs. 10,180, submitted by the Superintending Engineer, V Circle, provides for constructing an outlet sluice of 20 vents at 89th mile on the Buckingham canal.

2. The estimate may be sanctioned.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

13th May 1898.

ORDER—No. 434 I., dated 3rd June 1898.

The following estimate is sanctioned :—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which Capital and Revenue Accounts are kept.
Buckingham Canal.
Open Capital Account.
Northern Section.
Chingleput Division.
I. Works.
2. Main Canals and Branches.
6. Other Cross Drainage Works.
Constructing an outlet sluice of 20 vents at 89th mile.

Estimate—	rs.
I. Works	10,180
II. Establishment	2,341
III. Tools and plant	9
Total	12,530

2. This sanction is registered as No. 41 I. of 1898-99, and will expire on the 31st March 1900.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India for information.

[Here enter No. 435 I., dated 3rd June 1898.]

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.

" Superintending Engineer, V Circle, with twelve enclosures.

" Examiner, Public Works Accounts.

Ed. W. D'Moss.

Public Works (1898) Department.

CURRENT No. 4367

Order

From

The Chief Engineer
for Irrigation

No. 157.2

Dated 13-5-98

Received

Registered

Enclosures # 14 (5 plans)

Spare copies

SUBJECT.

Constructing an outlet sluice
at 89° mill on the Beulah phase
Canal - Estimate of Rs 12530 for -
Note recommended for
sanction the -

F.E.9

BACK PAPERS.

FURTHER PAPERS.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

From the Supp. Engineer, Fifth Circle. (H.E. No 152. E.I. dated 26.4.98)
No 157. 24.10.538

Note by the Chief Engineer for Inspection

The accompanying estimate amounting to Rs 10,180, submitted by the Supery. Engineer, Fifth Circle, provides for constructing an out-let sluice of 20-vents at 89th mile on the Buckingham Canal.

The estimate may be sanctioned.

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The following estimate is sanctioned

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Injection

43, Minor Works and Repairs
Minor Works for which Capital and
Revenue Accts. are kept.

Buckingham Canal.

Open Capital Account.

Northern Section.

Chiefdeput division.

I. Works.

2. Main Canals and branches.

6. Other Cross drainage works.
Constructing an outlet sluice of
20-vents at 89th mile.

Estimate—
 I. Works. ————— Rs. 10,180. ✓
 II. Establishment. — 2,341. ✓
 III. Tools and plant. — 9. ✓
Total 12,530. ✓

2. This sanction is registered as
No. 41-I of 1898-99 and will
expire on the 31 March 1900.

3. Ordered that a
copy of these Procs. be
forwarded to the
Govt of India for
information.

Indorsement — no 435-I
3-6-98
Forwarded.

W.H.
13-5-98
I

Recd
6/1/98

To The Chief Engineer for Impadon ✓
 " Supp. Engineer, Fifth Circle ✓
 " Examiner, P.W. Accts. ✓
 with 12 Encls

Public Works (1898) Department.

CURRENT No. 21 B.

Order

From
The Supp Engineer
5 mile.

No 15280.

Dated 26th April 1898.

Received 27 — 20 —

Enclosures " (5 plans)

Spare copies

SUBJECT.

To D.E.I.

Thro F.E.I.

Buckingham Canal.

The Estimate has been
checked.

Submitting for sanction
plans & Estimates amount
to Rs 10,180 for construction
an outlet sluice of 20 Vents
at 89 mile on the —

The provision of 20 vents
to the outlet sluice cannot be
checked as no hydraulic
calculations have accompanied
the Estimate

C.E. to check the
Estimate

Draft despatch for file.

13/5/98

3-5-98

13/5/98

13/5/98

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PAPERS.

FURTHER PAPERS.

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Date.	No.	Date.
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Report.

OFF
1890

Outlet of 20 Vents in Mile 89th of North

For the purpose of providing sufficient escape in the Guernamuki. And along reach of Canal 76 to 90 mile, it is proposed to build a 20 Vents masonry Outlet in the 89th mile. This reach is subject to very heavy floods when it happens that the Lullacalva breaches into the canal, this flood rising in 1893 to as much as M.S.L. + 9 ft in Canal.

2. There is a ground flush escape provided in the East bank in 7th - 750 ft long. This is at the Guernamuki end. This escape is considered not sufficient to pass off the heavy flood in canal. So it is considered essential that this Outlet be built at the North or Haudaloro end.

3. Hitherto it was intended to pass off floods at this end of the reach through old breaches in both banks of Canal between 89th and 90th miles. These breaches occurred in 1893 when the heavy flood noted above passed through the canal and when the Haudaloro attained its highest known flood of M.S.L. + 6.75 ft. These breaches are at present closed by low bunds sufficiently high to suit Engineers.

No. 152 E.S.

SUPERINTENDING ENGINEER'S OFFICE

V CIRCLE, MADRAS,

Chennai, 26 April 1898

From

Colonel C. C. Rawson R.E.

SUPERINTENDING ENGINEER,

V CIRCLE,

To

THE Chief Engineer for Irrigation,
Madras.

SIR,

I have the honour to submit for
sanction the enclosed plans and estimate
amounting to Rs. 10,180/- for constructing an
outlet sluice of 20 vents at 89th mile on the
Buckingham Canal.

The object and necessity for the
proposed work is explained in the report
which accompanies the estimate

I have the honour to be
Sir

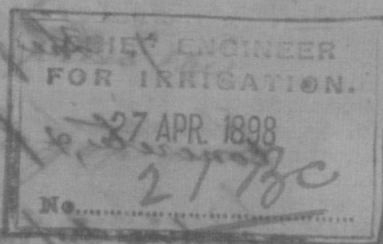
Your most obedient servant

C. C. Rawson Colonel R.E.
25/4/98
Superintending Engineer
5th Circle.

Enclosures //

- 1 Survey plan
- 1 Outlet plan
- 1 Self acting shutter plan
- 1 Longitudinal and cross section
- 1 Report
- 1 Sketch
- 1 Data for shutters
- 2 Detailed estimates
- 1 Calculation sheet
- 1 Abstract estimate

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CHIEF ENGINEER
FOR IRRIGATION.
27 APR. 1898
No. 21 Bc