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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 3577	Press
289-291	Min.
Dated 14-12-1864	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
14th December 1864.*

Read the following letters:—

No. 289. From Captain J. MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Madras, 15th November 1864, No. 146.

SIR,

1. I have the honor to submit, for the information of Government, a letter No. 1,755 of the 11th instant, from the Agent and Manager Irrigation and Canal Company, giving cover to the communication as per margin, from the Chief Engineer, in which that Officer offers certain remarks on the letter from this Office, contained

No. 947, dated 22nd ultimo.

in Proceedings of the Madras Government of the 7th ultimo, No. 2,893.

Paragraph 1.

2. I do not know to what channels Colonel Cotton refers, as being capable of carrying 1,00,000 cubic yards of water direct to the Kundar. No channel besides the Main Canal, which is intended to carry 45,000 cubic yards per hour, has been sanctioned or proposed.

Paragraphs 2 and 3.

3. I have not been able to find any sections of the Caulee among the records of this Office. It is not probable that any sufficient information on the subject could have been obtained, except through the Chief Engineer, and if he can refer to the date of transmission of any surveys or sections, they might be readily traced. If the capacity of the Caulee has been completely investigated, it cannot be difficult to shew what the results of the investigation were, and the data on which those results were arrived at, and as, though it is very possible that Colonel Rundall's examination of the calculations was sufficient, no record of this examination is to be found, it should not be considered unreasonable that a re-capitulation of the evidence, which may exist, as to the probable effects of the addition of a large body of water to the natural supply of the Caulee, should have been asked for. The Chief Engineer's letter gives no additional information, and, in the absence of such, the matter stands exactly where it did when paragraph 3 of the Order of Government No. 2,433 of the 24th August last was passed.

See paragraph 12 of letter No. 109 of 26th September.

4. It would be difficult to do more than has been done to explain to the Chief Engineer what information had been asked for from the Divisional Officers, when I visited the canal works a few months since, but as Colonel Cotton thinks, however unreasonably, that information was expected from the Executive Engineers, the giving of which would interfere with their duties, it will be better for the future to obtain all requisite information officially from the Chief Engineer himself, and this will accordingly be done.

No. 290. From Captain J. MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Madras, 29th November 1864, No. 158.

SIR,

1 Original letter from Agent.

4 Plans.

Longitudinal section of Caulee river.

Do. do.

Survey.

Cross sections.

No. 1,067, 14th instant, with Agent's No. 1,955, 23rd instant, with four tracings.

that river the irrigation water from the surplus works in the 73rd mile.

2. The cross sections of the Vagu are not so plotted as to facilitate calculation, but I have taken

• 15.44 feet per mile.

that at 23 chains and re-plotted it, and I find that taking the average fall* of the five chains

*Proceedings of the Madras Government, Public Works Department,
14th December 1864.*

above and the same distance below the section, the discharge in maximum freshes would be about 5,42,000 cubic yards per hour; or taking the average fall of the 34 chains of the longitudinal section, the maximum discharge would be about 6,20,000 cubic yards, both of which are within the allowance made in paragraph 90 of my letter of the 2nd July, and much below the million of paragraph 2 of the Chief Engineer's letter now submitted, and I do not think that the sections forwarded by Colonel Cotton would warrant the assumption that, were the 3,00,000 cubic yards of canal water turned into the Bunakurla tributary when that was in high fresh, the effect would be immaterial.

3. What the Chief Engineer states, however, with regard to the closeness of the surplus works to Bowanassy, and to the possibility of diverting the canal water into the Bowanassy river, is another point for consideration. The scouring sluice in the 70th mile will have the same number of vents as that in the 73rd mile, and they were sanctioned at the same time, and apparently on the same plan, but it was not mentioned that the scouring sluices in the 70th mile were intended to relieve the canal when the Banakachurla Vagu happened to be in fresh, nor was such a use of them hinted at when I visited the works and noted the particulars, which were embodied in the Report No. 40, 2nd July, and I supposed therefore that the surplus water they were to carry off, was that which might pass the calingulah, which was to be built below Terogapila when it was proposed to construct a tank there. Now, however, that surplus will not exist, and therefore the sluices will be available for discharging canal irrigation water not required below the 70th mile.

4. The maximum depth of water in the canal at the sluices will be about 9 feet, and their discharging capacity with, say, 3 feet on the lower apron, would be 2,20,000 cubic yards per hour. The canal below the 73rd mile will carry 45,000 cubic yards, and therefore only 35,000 cubic yards will remain to be disposed of, and these can no doubt be discharged without inconvenience into the branch of the Caulee, which will be placed in connection with the surplus works of the 73rd mile. I find also that the estimate provides for a channel below the sluices with revetment and pitching, and I am of opinion therefore that the Chief Engineer's arrangements are likely to prove sufficient.

No. 291. ORDER THEREON, 14th December 1864, No. 3,577.

1. The Government observe that the Consulting Engineer is satisfied that the arrangements proposed by the Chief Engineer of the Madras Irrigation and Canal Company will remove the risk of inundation, to which it seemed likely that the Company's works would expose the land near Banakachurla.

G. O. No. 2,438.

2. The investigation into the capacity of the Caulee, called for on the 24th August last, will not be necessary.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Irrigation and Canal Company.
,, Manager for do. do.

Exd. T. O'Connor,

Consulting Engineer's Office
Irrigation and Canal Company,
Madras, 15 November 1864.

N. 146.

To, Captain, J. Mullins, R. E.
Consulting Engineer, I. & C. Co.

The Secretary to Government
Department of Public Works.

1. I have the honor to submit for the information of Government a letter N. 1755 of the 11th instant, from the Agent and Manager Irrigation and Canal Company, giving cover to the communication as per margin, from the Chief Engineer, in which that officer offers certain remarks on the letter from this office, contained in Proceedings of the Madras Government of the 7th ultimus N. 2893.

2. I do not know to what channels Colonel Cotton refers as being capable of carrying 1,00,000 cubic yards of water direct to the Kündia. No channel besides the Main canal, which is intended to carry 1,50,000 cubic yards per hour, has been sanctioned or proposed.

3. I have not been able to find any sections of the Caulee among the records of this office. It is not probable that any sufficient information on the subject could have been obtained, except through the Chief Engineer, and if he can refer to the date of transmission of any surveys or sections, they might

might be readily traced. - If the capacity of the
Canal has been completely investigated, it cannot
be difficult to show, what the results of the in-
vestigation were, and the data on which those
results were arrived at, and as, though it is very pos-
sible that Colonel Randall's examination of the
calculations was sufficient, no record of this exa-
mination is to be found, it should not be consid-
ered unreasonable that a recapitulation of the evi-
dence, which may exist as to the probable effects
of the addition of a large body of water to the natural
supply of the canal, should have been asked for. -
The Chief Engineer's letter gives no additional inform-
ation, and, in the absence of such, the matter stands
exactly where it did when para. 3 of the order of
Government No. 2,438 of the 24th August last was
passed. -

4. It would be difficult to do more than has ^{see para. 12 of letter}
been done to explain to the Chief Engineer, what ^{No. 109 of 26 Sept.}
information had been asked for from the Divisional
Officers, when I visited the canal works a few months
since, but as Colonel Cotton thinks, however unrea-
sonably, that information was expected from the
Executive Engineers, the giving of which would in-
terfere with their duties, it will be better for the
future to obtain all requisite information offi-
cially from the Chief Engineer himself, and this
will accordingly be done. -

I have the honor, Sir,
to acknowledge the receipt of your
letter of the 11th inst.
and to inform you that the same
has been forwarded to the
proper authorities for their
consideration. -

E. D. Smith

Consulting Engineer's Office,
Irrigation Canal Company,
Madras, 29 November 1864.

N^o 158.

To,
Captain J. Mullins R.E.
Consulting Engineer
The Secretary to Government
Department of Pub. Works.

Sir,

1. In continuation of my letter N^o 146 of the 15th instant, I have the honor to transmit for the information of Government, a further communication from the Chief Engineer, on the subject of the capacity of the tributary of the puzee which is to receive and convey to that river the irrigation water from the surplus works in the 73rd mile.
2. The cross sections of the Vagu are not so plotted as to facilitate calculation, but I have taken that at 23 chains and replotted it, and I find that taking the average fall of the 5 chains above and the same distance below the section, the discharge in maximum freshes would be about 542,000 cubic yards per hour, or taking the average fall of the 34 chains of the longitudinal section, the maximum discharge would be about 620,000 cubic yards, both of which are within the allowance made in para. 90 of my letter of the 2nd July, and much below the million of para. 2^o of the Chief Engineer's letter now submitted, and I do not think that the sections forwarded by Colonel Cotton would warrant the assumption that, were the 300,000 cubic yards of canal water

N^o 1867-14 inch. with
Agate N^o 1988-23. do.
with 44 drawings.

*15.64 feet per mile.

*19.21 feet per mile.

*800,000.

No 24. Sept 64 1864-53
No 21 Oct. 64 29-80
No 22 do. 186-102

1864-53
23. 11. 64
The Consulting Engineer
to the Government of Madras

These papers, from past year, are not at all accurate
transcribed. The original papers, that we should be
referred in drawing for illustration, should be
the Chief Engineer's report on the subject, and the
the Chief Engineer's report on the subject, and the
the Chief Engineer's report on the subject, and the

15th November 1864.
Recd 17/11

One in only.

2. Write legend to the Tante river
the 73rd mile where there is a serious
order. The investigation into
its capacity should be made as
soon as possible, in order that, if
necessary, precautionary measures
may be taken. The
adjoining land being inundated
by the water from the canal which
will be conveyed into the river.

Subscribed by me in
a letter N^o 1985 of the 11th inst.
from the Chief Engineer
the contents of the meeting
from the Chief Engineer
N^o 25-11-64
With an order

To the Consulting Engineer J. H. Smith
Newnham St. 5-7

2. 25-11-64 1864-53 29-80

water turned into the Panatula tributary when that was in high fresh, the effect would be immaterial.

3. That the Chief Engineer states however with regard to the closeness of the surplus works to Comanacy, and to the possibility of diverting the canal water into the Comanacy river is another point for consideration. The scouring sluice in the 70th mile will have the same number of vents as that in the 73rd mile, and they were, same. It was at the same time, and apparently on the same plan, but it was not mentioned that the scouring sluices in the 70th mile were intended to relieve the canal when the Panatula hula vagn happened to be in fresh, nor was such a use of them hinted at when I visited the works and noted the particulars which were embodied in the report of 40th July, and I supposed therefore that the surplus water, they were to carry off, was that which might pass the calingulak, which was to be built below Terogapila when it was proposed to construct a bank there. - Now however that surplus will not exist and therefore the sluices will be available for discharging canal irrigation water not required below the 70th mile. -

4. The maximum depth of water in the Canal at the sluices will be about 9 feet, and their discharging capacity with, say, 3 feet on the lower apron would be 220,000 cubic yards per hour. The canal below the 73rd mile will carry 40,000 cubic yards, and therefore only 180,000 cubic yards will remain to be disposed of, and these can no doubt be discharged without inconvenience into the branch of the Canal, which will be placed in connection with the surplus works of the 73rd mile. - It is also that the estimate provides for a channel below the sluices

sluices with revetment and pitching, and I am of opinion therefore that the Chief Engineer's arrangements are likely to prove sufficient.

I have the honor to be,
Sir,
Your most obedient servant,
W. C. D. G. L. S. Captain,
Comd'g Engrs for I. H. Compt.

W. C. D. G. L. S.

*P*rom the Cor. of the *L.C.* Co^y - N.Y. 8. 15th Nov/64 No. 146.
 " ————— do ————— do ————— N.Y. 8. 29th ———— " ————" 158.

The Govt observe
that the Consulting Engineer
is satisfied that the ar-
rangements proposed by
the Chief Eng^r of the ^{Proper} Irri-
gation ^{System} Company will remove
the risk of inundation
to which it seemed likely
that the Company's works
would expose the land
near Banakacharla.

2. The investigation into the Capacity of the Canals, called for in the 24th Aug^r last, will not be necessary.

To Mr. Conger & Co. Comp^y With 2 Letters & 4 Plans
Wm. Mahagen Do
2 P. 2. 2. 2.
Decr 15th December

327 1848
J. C. Goodrich & Co. Secular
175 5770
The Continental Co.
to the Secretary of the A. B. P. C.

1840-29 } November 1841
 Nov 1 } Dec "

Qued: 5.

Examine it for information
as to the communication from the
Chief Agent on the subject of the
capacity of the Sinking of the
Cancer which is so recent. I have
asked him the question under
from the English books in the 1832

270290

407 1864 Depo.
Pro: of Govt for Depo

N^o 3577
Pro: of the M^o Govt
D^y 14 Dec^r 64.

Letter from the
Cont^r J. Enest & Adams
C. H. C. forwarding
certain correspondence
regarding the supply
by the Insur. with
orders thereon.

N^o 289. C 291