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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	2467	Press
B.P. No.		Misr
Dated	15-9-	1876 -195-

Not to be folded or roughly handled

No 243 Read the following letter from E H PRINGLE, Esq, District Engineer, South Canara, to Major-General G W. WALKER, R E, Secretary to Government, Public Works Department, dated Camp at Poottoor, 29th August 1876, No 46 —

WITH reference to paragraph 2 of G O, No 2,055, dated 10th August 1876, regarding the action of the flood in the Netravati, a flood which also extended to the Goorpoor river basin, I have the honor to state that I have not hitherto reported on the effects of the flood action on the harbour, as, through a sudden attack of illness, I was unable to visit the spot, and subsequently had to proceed to Beltangady to examine into the cause of a partial failure of one of the piers of the Beltangady bridge

2 From the reports of the Mangalore Divisional Officer and his Subordinates, the chief effects of the flood seem to have been, 1st, the widening of the united mouth by the sweeping away of the end of B spit to somewhere near $\frac{1}{16}$, and presumably of the end portion of A spit, 2nd, the washing away of much more of C spit, which the Sub-overseer who went over the place informs me has disappeared from about $\frac{1}{2}$ to about $\frac{1}{4}$, 3rd, the backing to the north of sand spit $\frac{1}{4}$ to $\frac{1}{16}$. On my return to Mangalore which will be in a week or so, I shall be better able to judge how far these effects have lasted, and shall then report more fully on the subject.

3 The flood has been very exceptional, the chief rain-fall must have been

Mangalore		Kundapur		Poottoor	
DATE	IN CTS	IN CTS	IN CTS	IN CTS	IN CTS
8th	2 80	1 30		0 82	
9th	0 99	2 45		3 19	
10th	0 66	2 67			
11th	2 94	2 15		2 81	
12th	3 24	2 0		1 75	
13th	3 35	2 60		1 87	
•	•	•		•	
21st	0 11	0 95		1 32	
22nd	0 16	2 85		2 14	
23rd	1 0	2 46		3 19	
24th	2 28	3 62		5 91	
25th	2 73	3 62		7 61	
26th	1 55	3 0		0 89	

principally inland and along the faces of the ghauts, for at Mangalore and Kundapur, the fall from 21st to 26th is as given in the margin, and does not equal that registered in the beginning of the month from 9th to 12th (about the 12th), causing the flood mentioned in paragraph 26 of my letter printed with the Government Order under reply. Inland however in the first case, the gauge at Poottoor shows a total rain-fall from 22nd to 25th of 18" 85, whilst in the

former flood of the 12th, the total from 9th to 12th was but 7" 75.

4 The following facts will show how unusually high the waters of the two rivers and their affluents rose, and convincingly prove that the loss of property in Mangalore did not result from the backing up of the Netravati caused by the northward position of its mouth, but simply from an abnormal flood. Some sixty years ago, when the harbour mouth must have been very nearly opposite the Sea Custom-house, a similarly disastrous flood is said to have occurred.

5 At Buntwal much destruction was caused to house property. Between this place and Mangalore miles of road were submerged, the water rising over it in places 7 to 8 feet. The Chumagargundi bridge was even more than this below the surface. Beyond Buntwal the entire road to Manny for 2 miles was several feet under water, and in places the stream rose about 12 feet over it. The Poochamogur bridge 12 spans of 30 feet on Mudbidry and Buntwal road kept its planting dry, except

Proceedings of the Madras Government, Public Works Department,
15th September 1876. No. 2,467.

where the water backing against the parapet swept over one bay. The Enoor and Hassangady bridges were both submerged with the exception of their parapets. Both these rivers are tributary to the Goorpoor river. At Uppinangady both the Netravati and Kumardary topped their banks, the Forest Department shed being swept away by the waters.

6. Beyond the cracking of the pier of Beltangady bridge before mentioned, which will be shortly reported on, no casualties to Public Works have occurred.

No 244. ORDER THEREON, 15th September 1876, No. 2,467

CIVIL WORKS, No 17.

ORDERED to be recorded

2. It is clear that the excessive flood was not confined to Mangalore, and consequently was not attributable to the state of the harbour mouth. Further report illustrated by survey of the effect of the flood on the sand deposits at the harbour mouth will be awaited.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt., P.W.D.

No 46 South Canara Dist Engr's office
Camp Cochin 29 August 76

From E. H. Pringle Esq.
District Engineer
South Canara

Major General G. D. Nathan Esq.
Secretary to Government
P. W. D. Madras

With reference to para 2 of G.O. No. 2005 dated 10 August 1876 regarding the action of the flood in the Netravati a flood, which also extended to the Goorpoor river basin, I have the honor to state that I have not hitherto reported on the effects of the flood action in the harbour as this a sudden attack of illness I was unable to visit the spot and subsequently had to proceed to Beltangady to examine into the cause of a partial failure of one of the piers of the Beltangady Bridge.

2. From the reports of the Mangalore Divisional Officer and his subordinates the chief effects of the flood seem to have been the widening of the united mouth by the sweeping away

of the end of Spit to somewhere near B₁ and presumably of the end portion of A spit; 2nd the washing away of much more of C spit; which the Suboverman who went over the place informs me has disappeared from about C₁ to about C₂, & the backing to the north of Sand spit B₄ to B₅. On my return to Mangalore which will be in a week or so I shall be better able to judge how far these effects have lasted, and shall then report more fully on the subject.

3. The flood has been very exceptional. The chief rain fall must have been principally inland and along the faces of the Ghats for at Mangalore and Standa-

From the fall from 25 to 26 Mangalore Standard Prother

is as given in the margin	Date	In	Out	In	Out	In	Out
	8	2	80	1	50		82
& does not equal that re-	9		99	2	45		
gistered in the beginning	10		46	2	67	3	19
of the month from 9 to	11	2	94	2	15	2	81
12 (about there) causing	12	3	26	2		1	75
	13	3	35	2	60	1	87
The flood mentioned in	21		11		95	1	32
para 26 of my letter	22		16	2	85	2	14
printed with the G.O.	23	1		2	46	3	19
under reply. Inland	24	2	28	3	62	5	91
	25	2	70	3	62	7	61
however in the first case the gauge at	26	1	55	2			89

Prother shows a total rain fall from 22 to 25 of 13.85 which in the former flood of the 42nd the total from 9 to 12 was but 7.75.

4. The following facts will show how unusually high the waters of the two rivers and their affluents rose and convincingly ^{proves} that the loss of property in Mangalore did not result from the backing up of the Petravati caused by the northward position of its mouth but simply from an abnormal flood. Some sixty years ago when the harbour mouth must have been very nearly opposite the Sea Customs House a similarly disastrous flood is said to have occurred.

5. At Buntwal much destruction was caused to house property. Between this place and Mangalore miles of road were submerged, the water rising over it in places 7 to 8. The Chumager-gundi bridge was even more than this below the surface. Beyond Buntwal the entire road to Munnay for 2 miles was several feet under water & in places the stream rose about 12' over it. The Pankajwadi bridge 12 spans of 30' on mud

and Buntwal road kept its planing
dry except where the water backing
against the parapet swept over me
bay. The Euro and Napanang bridges
were both submerged with the exception
of their parapets. Both these rivers
are tributary to the Oorpon river.
At Napanang both the Arharate
and Kumanang topped their banks
the Street Department shed being swept
away by the waters.

Beyond the cricking of the pier
of Napanang Bridge before men-
tioned which will be shortly repaired
no casualties to Public Works
have occurred.

I have the honor to be,
Sir,
Your most obedt Servt

Edw. Smith
District Engineer
South Canaan

PROCEEDINGS OF THE MADRAS GOVERNMENT

Under date the 15th Sept 1876 -
Read the following -

From
The Dist Engineer
South Canara } (H.C. No. 46 of 29th Aug 1876)

Ordered to be re-
-corded.
2. It is clear that
the previous flood was
not confined to Mangalore
-lore and consequently
was not attributable
to the state of the Har-
-bour mouth. ^{But the} Report
illustrated by ^{the} survey
of the effect of the flood
on the sand deposits
at the Harbour mouth
will be useful.

(M)

H. S. Canara ✓
Marine Dept. ✓
Oct 3/1876

G.O. 8-71 No. 2055.
10am of 8/2055.

P.W.D.

51276

From
The District Engineer
S. Canara

To
The Secy to Government
P. W. D. Madras

Dated 29 August 1876

Reports further
Changes in the Mangalore
Harbour.

No. 243

cc-12-9-76 M.D. 15-9-76
Despatched to 15-9-76

6417.011

Gobt. of 1876 Madras.
PUBLIC WORKS.

To

The H. E. ~~to the~~ *to the* ~~Canara~~

Dated

Issued

Recd

Encl

G. O., 15 *Sept* 1876, No. 2167

Nos. 213 - 214

Mangalore Hinton

Letter from Mr. *Inspector*
~~Inspector~~ reporting
proposed changes in the
— *condemned*
— *remarks*

*to be in Reg.
to 10-11-76*

W.H.