M.R.O. 1—77,006—8-6-37.

(1) Number of pages 14

(2) Date of repair 2-5-44

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Rule & Works DEPARTMENT.

G.O. No. 210 Press ~~Mis.~~

427-28

Dated 25-1- 1871.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 25th January 1871.

No. 427. Read the following letter from the Executive Engineer on special duty, Madura District, to the Chief Engineer for Irrigation, dated Madura, 12th December 1870, No. 283 :—

I HAVE the honour to submit the subjoined report of the progress made, in November 1870, with the preparation of the scheme for the diversion of the Perryaur.

Two tables of rainfall and discharge of Perryaur.

2. The sinking of trial pits at the different sites proposed for the head-works in the hills was commenced, and has been steadily proceeded with. Rock has been found in all the saddles at about 12 feet below the surface.

3. A path has been cleared along the road constructed last year to facilitate the transport of stores and supplies. Lieutenant Greer found this communication overgrown with jungle and almost impassable.

4. Judging from the results of this year's working up to date, the reduced rate (6 Annas per day) introduced towards the close of last season is ample remuneration for able-bodied men. The coolies tried to get the original rate of 8 Annas per diem, and gave some trouble at first, but Lieutenant Greer was firm and managed so well that, in a few days, he had more labourers than he could employ.

5. The designs for the works and the trial estimates for the main channel on the north of the Vigay are in active preparation.

6. Statements showing the rainfall at the Perryaur Camp and the discharge of the Perryaur from the 18th October to the 30th November 1870 inclusive are enclosed. The usual diagrams will be submitted at an early date.

7. Annexed is an abstract of the surveying and levelling done during the month under review :—

Branch channel set out in miles.	Lineal miles of country surveyed.	Levelling operations. Aggregate length of longitudinal and transverse sections in miles.	Number of permanent bench-marks fixed.	Number of trial pits sunk to the full depth.
36⅛	81⅛	75⅛	8	84

PERRYAUR PROJECT.

Table of Rainfall and Discharge of Perryaur during the latter part of October 1870.

Dates.	Rainfall at Perryaur Camp.	Hours.	Water level in feet.	Discharge. Cubic feet per second.	Discharge. 1,000 Cubic yards per day.
	Inches.				
18th	0·30	6 A. M.	2·90	1,632	5,328
		6 P. M.	2·84	1,648	
19th	0·23	6 A. M.	2·65	1,541	4,838
		6 P. M.	2·60	1,514	
20th	0·33	6 A. M.	2·75	1,602	4,933
		6 P. M.	2·54	1,481	

Table of Rainfall and Discharge of Perryaur, etc.—(Concluded.)

Dates.	Rainfall at Perryaur Camp.	Hours.	Water level in feet.	Discharge.	
				Cubic feet per second.	1,000 Cubic yards per day.
	Inches.				
21st	0·35	6 A. M.	2·26	1,312	4,437
		6 P. M.	2·50	1,461	
22nd	0·50	6 A. M.	2·59	1,509	5,051
		6 P. M.	2·84	1,648	
23rd	0·30	6 A. M.	2·98	1,727	5,400
		6 P. M.	2·84	1,648	
24th	0·13	6 A. M.	2·50	1,461	4,517
		6 P. M.	2·34	1,362	
25th	0·05	6 A. M.	2·20	1,268	3,698
		6 P. M.	1·85	1,043	
26th	0 02	6 A. M.	1·50	845	2,704
		6 P. M.	1·50	845	
27th	0·02	6 A. M.	1·30	752	2,365
		6 P. M.	1·24	726	
28th	0·00	6 A. M.	0·95	609	1,909
		6 P M.	0 88	584	
29th	0 00	6 A. M.	0·75	536	1,715
		6 P. M.	0·75	536	
30th	0·08	6 A. M.	0·75	536	1,630
		6 P. M.	0·69	514	
31st	0·30	6 A. M.	0·65	500	1,573
		6 P. M.	0·60	483	
Total...	2·61				50,198

Depth run off from Catchment Basin of 250 square miles in 14 days = 2·33 inches.

Mean Discharge ... { 3,585,571 Cubic yards per day. / 149,399 ,, ,, per hour. / 1,120 Cubic feet per second.

MADURA,
12th December 1870.

(Signed) R. SMITH,
Executive Engineer on special duty.

PERRYAUR PROJECT.

Table of Rainfall and Discharge of Perryaur during November 1870.

Dates.	Rainfall at Perryaur Camp.	Hours.	Water level in feet.	Discharge.	
				Cubic feet per second.	1,000 Cubic yards per day.
	Inches.				
1st	0·25	6 A. M.	0·66	504	1,664
		6 P. M.	0·75	536	
2nd	0·18	6 A. M.	0·50	451	1,443
		6 P. M.	0·50	451	
3rd	0·05	6 A. M.	0·42	426	1,363
		6 P. M.	0·42	426	
4th	0·00	6 A. M.	0·35	408	1,306
		6 P. M.	0·35	408	
5th	0·65	6 A. M.	0·35	408	1,275
		6 P. M.	0·25	389	
6th	0·15	6 A. M.	0·75	536	1,896
		6 P. M.	1·05	649	
7th	0·15	6 A. M.	0·63	504	1,570
		6 P. M.	0·58	477	

Proceedings of the Madras Government, Public Works Department, 25th January 1871.

Table of Rainfall and Discharge of Perryaur during November 1870.—(Continued.)

Dates.	Rainfall at Perryaur Camp.	Hours.	Water level in feet.	Discharge.	
				Cubic feet per second.	1,000 Cubic yards per day.
	Inches.				
8th	0·22	6 A. M.	0·50	451	1,443
		6 P. M.	0·50	451	
9th	0·07	6 A. M.	1·66	928	2,899
		6 P. M.	1·58	884	
10th	0·10	6 A. M.	1·58	884	2,706
		6 P. M.	1·42	807	
11th	0·10	6 A. M.	1·33	766	2,176
		6 P. M.	0 91	594	
12th	0·10	6 A. M.	3·40	1,978	5,402
		6 P. M.	2·40	1,398	
13th	0·13	6 A. M.	4·00	2,457	6,336
		6 P. M.	2 58	1,503	
14th	0·50	6 A. M.	2·75	1,602	4,385
		6 P. M.	2·00	1,139	
15th	0·45	6 A. M.	3·20	1,856	21,158
		8 A. M.	4·71	3.191	
		10 A. M.	5·63	4,103	
		12 NOON.	8·00	6,925	
		2 P. M.	11·33	11,995	
		4 P. M.	10·08	9,933	
		6 P. M.	9·00	8,282	
16th	0·04	6 A. M.	4·30	2,696	7,203
		12 NOON.	3·55	2,079	
		6 P. M.	3·40	1,978	
17th	0 02	6 A. M.	2·75	1,602	4,800
		6 P. M.	2·40	1,398	
18th	0 12	6 A. M.	2 50	1,461	4,477
		6 P. M.	2·30	1,337	
19th	0·14	6 A. M.	8·00	6,925	13,731
		8 A. M.	7·80	6,661	
		10 A. M.	6·72	5,322	
		12 NOON.	4·90	3,377	
		2 P. M.	4·50	2,916	
		4 P. M.	4·15	2,560	
		6 P. M.	3·80	2,280	
20th	0·30	6 A. M.	5·20	3,668	8,576
		8 A. M.	4·80	3,277	
		10 A. M.	4·40	2,877	
		12 NOON.	4·20	2,680	
		2 P. M.	3·90	2,368	
		4 P. M.	3·40	1,978	
		6 P. M.	3·30	1,913	
21st	0·01	6 A. M.	2·90	1,682	4,678
		6 P. M.	2·15	1,242	
22nd	0·02	6 A. M.	1·85	1,043	2,872
		6 P. M.	1·30	752	
23rd	0·01	6 A. M.	3·10	1,794	4,914
		6 P. M.	2·20	1,277	
24th	0 01	6 A. M.	1·85	1,043	3,021
		6 P. M.	1·50	845	
25th	0·01	6 A. M.	1·40	798	2,480
		6 P. M.	1·30	752	
26th	0·02	6 A. M.	1·05	649	2,077
		6 P. M.	1·05	649	
27th	0 02	6 A. M.	0·75	536	1,715
		6 P. M.	0·75	536	
28th	0·02	6 A. M.	0·60	483	1,546
		6 P. M.	0·60	483	

Table of Rainfall and Discharge of Perryaur during November 1870.—(Concluded.)

Dates.	Rainfall at Perryaur Camp.	Hours.	Water level in feet.	Discharge. Cubic feet per second.	Discharge. 1,000 Cubic yards per day.
	Inches.				
29th	0·00	6 A. M.	0·50	451	1,443
		6 P. M.	0·50	451	
30th	0·00	6 A. M.	0·50	451	1,453
		6 P. M.	0·52	457	
Total...	3·84	Indus	.....	.....	122,008

Depth run off from Catchment Basin of 250 square miles = 5·67 inches.

Mean Discharge ... { 4,066,933 Cubic yards per day.
169,456 ,, ,, per hour.
1,271 ,, feet per second.

	Cubic yards.
Discharge of Perryaur in November 1869	496,396,000
Do. do. in November 1870	122,008,000
Difference...	374,388,000

(Signed) R. SMITH,
Executive Engineer on special duty.

MADURA,
12*th December* 1870.

No. 428. ORDER THEREON, 25th January 1871, No. 210.

IRRIGATION, No. 23.

ORDERED to be recorded.

(True Extract.)

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

Exd. E. C. Shunker.

Perryaur Project.

Table of Rainfall and Discharge of Perryaur during November 1870

Dates	Rainfall at Perryaur Camp. Inches	Hours	Water Level in feet	Discharge Cubic feet per Second	Discharge 1000 Cubic yards per day	Dates	Rainfall at Perryaur Camp. Inches	Hours	Water Level in feet	Discharge Cubic feet per Second	Discharge 1000 Cubic yards per day
							3·28				7,350
1	0·25	6 a m	0·66	504	1,664			6 a m	8·00	6,925	
		6 p m	0·75	536				8 a m	7·80	6661	
2	0·18	6 a m	0·50	451	1,443			10 a m	6·72	5,322	
		6 p m	0·50	451				12 noon	4·90	3,377	13,731
3	0·05	6 a m	0·42	426	1,363	19	0·14	2 p m	4·60	2,916	
		6 p m	0·42	426				4 p m	4·15	2,560	
4	0·00	6 a m	0·35	408	1,306			6 p m	3·80	2,280	
		6 p m	0·35	408							
5	0·65	6 a m	0·25	389	1,245			6 a m	5·20	3,668	
		6 p m	0·75	536				8 a m	4·80	3,277	
6	0·15	6 a m	1·05	649	1,896			10 a m	4·40	2,877	
		6 p m	0·66	504				12 noon	4·20	2,680	8,57
7	0·15	6 a m	0·58	477	1,570	20	0·30	2 p m	3·90	2368	
		6 p m	0·50	451				4 p m	3·40	1,978	
8	0·22	6 a m	0·50	451	1,443			6 p m	3·30	1,913	
		6 p m	1·66	928							
9	0·07	6 a m	1·58	884	2,899	21	0·01	6 a m	2·90	1682	4,67
		6 p m	1·58	884				6 p m	2·15	1,242	
10	0·10	6 a m	1·42	807	2,706	22	0·02	6 a m	1·85	1,043	2,87
		6 p m	1·33	766				6 p m	1·30	752	
11	0·10	6 a m	0·91	594	2,176	23	0·01	6 a m	3·10	1,794	4,91
		6 p m	3·40	1,978				6 p m	2·20	1,277	
12	0·10	6 a m	2·40	1,398	5,402	24	0·01	6 a m	1·85	1,043	3,02
		6 p m	4·00	2457				6 p m	1·50	845	
13	0·13	6 a m	2·58	1,503	6,336	25	0·01	6 a m	1·40	798	2,48
		6 p m	2·75	1,602				6 p m	1·30	752	
14	0·50	6 a m	2·00	1,139	4,385	26	0·02	6 a m	1·05	649	2,07
		6 p m	3·20	1,856				6 p m	1·05	649	
15	0·45	6 a m	4·71	3191				6 a m	0·75	536	
		8 a m	5·63	4,103		27	0·02	6 p m	0·75	536	1,71
		10 a m	8·00	6,925				6 a m	0·60	483	
		12 noon	11·33	11,995	21,158	28	0·02	6 p m	0·60	483	1,54
		2 p m	10·08	9933							
		4 p m	9·00	8,282				6 a m	0·50	451	
		6 p m	4·30	2696		29	0·00	6 p m	0·50	451	1,44
16	0·04	6 a m	3·55	2,079	7,203						
		12 noon	3·40	1,978				6 a m	0·50	451	
		6 p m	2·75	1,602		30	0·00	6 p m	0·62	457	1,45
17	0·02	6 a m	2·40	1,398	4,800						
		6 p m	2·50	1,461							
18	0·12	6 a m	2·30	1,337	4,477	Total	3·84	Indus		Total	122,00
		6 p m									
Total	3·28				73,502						

Depth run off from Catchment Basins of 250 Square miles = 5·67 inches.

Mean Discharge { 4,066,933 Cubic yards per day
169,456 Cubic yards per hour
1,271 Cubic feet per second.

Discharge of Perryaur in November 1869 — 496,396,000 Cubic yards
Discharge of —— Do — in November 1870 — 122,008,000
Difference —— 374,388,000

Spl. Ex: Engr's office.
Madura 12th Dec 1870.

Comp'd
Ex'd

Executive Engineer On Spl duty

Enclosure No 2 in my letter from the Executive Engineer, Periyar Stand dated Madura Division Dated 12th December 1870

No 2853

To The Chief Engineer For Irrigations Madras

Table of Rainfall and discharge of Periyaur during November 1870.

Periyaur Project

Table of rainfall and discharge of Periyaur during the latter part of October 1870.

Dates	Rainfall at Periyaur Camp Inches	Hours	Water level in feet	Discharge Cubic feet per Seconds	Discharge 1000 Cubic yards per day
1	0.30	6 a.m	2.90	1,682	5,328
		6 p.m	2.874	1,648	
2	0.23	6 a m	2.65	1,541	4,888
		6 p m	2.60	1,514	
3	0.33	6 a m	2.75	1,602	4,933
		6 p m	2.54	1,481	
4	0.35	6 a m	2.26	1,312	4,437
		6 p m	2.50	1,461	
5	0.50	6 a m	2.59	1,509	5,051
		6 p m	2.84	1,648	
6	0.30	6 a m	2.98	1,727	5,400
		6 p m	2.84	1,648	
7	0.15	6 a m	2.50	1461	4,517
		6 p m	2.54	1,562	
8	0.05	6 a m	2.20	1,268	3,698
		6 p m	1.85	1,043	
9	0.02	6 a m	1.50	845	2,704
		6 p m	1.50	845	
10	0.02	6 a m	1.30	752	2,365
		6 p m	1.24	726	
11	0.00	6 a m	0.95	609	1,909
		6 p m	0.88	584	
12	0.00	6 a m	0.75	536	1,715
		6 p m	0.75	536	
13	0.08	6 a m	0.75	536	1,680
		6 p m	0.69	574	
14	0.30	6 a m	0.65	500	1,573
		6 p m	0.60	483	
	2.61				50,198

Rain run off from Catchment Basin of 250 Square miles in 14 days = 2.33 inches

Mean discharge { 3,585,571 Cubic yards per day; 149,399 Cubic yards per hour; 1,120 Cubic feet per seconds.

Executive Engineer, Periyaur Project

Copies: Chief office; Madras 12th December 1870.

Compared

No. 283

Special Executive Engineer's Office
Madura 12th December 1870

From,

R. Smith Esqre
Executive Engineer, On Special duty
Madura District

To,

Major P. Mullins R.E.
Chief Engineer for Irrigations
Madras.

Sir,

Enclosures 2.
2. Tables of Rainfall and discharge of Perryaur.

I have the honor to submit the subjoined report of the progress made, in November 1870, with the preparation of the Scheme for the diversion of the Perryaur.

2. The sinking of trial pits, at the different sites proposed for the Head Works in the Hills, was commenced and has been steadily proceeded with. Rock has been found, in all the saddles, at about 12 feet below the surface.

3

Enclosure 1st to Letter from the Executive Engineer, On Special duty Madura District dated 12th December 1870.

No. 283.

By the Chief Engineer for Irrigation, Madras.

Rec'd 5th/71

Tables of Rainfall and discharge of Perryaur during the latter part of October 1870. —

3. A path has been cleared along the road, constructed last year, to facilitate the transport of stores and supplies. Lieutenant Greer found this Communication overgrown with Jungle and almost impassable.

4. Judging from the results of this year's working, up to date, the reduced rate (6 annas per day) introduced towards the Close of last season, is ample remuneration for able-bodied men. The Coolies used to get the original rate, of 8 annas per diem, and gave some trouble at first, but Lieutenant Greer was firm and managed so well that in a few days he had more labourers than he could employ.

5. The designs for the works, and the trial estimates for the main Channel, on the North of the Vigay, are in active preparation.

6. Statements showing the rain-fall at the Ferryaur Camp, and the discharge of the Ferryaur, from the 18th October to the 30th November 1870, inclusive, are enclosed. The usual diagrams will be submitted at an early date.

7. Annexed is an abstract of the Surveying and Levelling done during the month under review.

Branch Channel set out in Miles	Lineal miles of Country Surveyed	Levelling operations Aggregate length of Longitudinal and Transverse Sections in miles	Number of permanent Bench Marks fixed	Number of Trial Pits Sunk to the first depth.
36 3/8	8 1/8	45 7/8	8.	84.

I have the honor to be
Sir
Your Most Obedient Servant
[signature]
Executive Engineer
On Special duty
Madura District

No. 1871 Dated
Rec'd 16 Dec. No. 283
From. Ch. Engr. No. 51

The Executive Engr.
On Special duty
Madura Div.

&c, &c,

The Chief Engineer
for Irrigations
Madras

Dated 12th
Desp. 14th } December 1870
Received. 16th
Recd. 6 Encls. 2/71

Submits the report of the progress made in November last with the preparations of the Scheme for the diversions of the Periyar

No. 2/6125 Dec. 71
With an abstract

Ordered to be recd.

Sd/ [illegible]
Secy.

Sd/ [illegible]
Secy. to Govt. P.W.D.

Sd/ [illegible]
Under Secy.

28/12/70

No 51

Govt. of {1871} Madras.

PUBLIC WORKS.

To

Dated.

Rcvd. Encl.

G. O. 25 Sanl 71, No. 210.

Nos. 127-128

Perryaur Project. Five Copies

Report, Estimates &c. for the

Construction, of Special Sluices

Bridges, of the Perryaur

Project for Sanl 70,

recorded.