

I/1039/2019(2)

भारत सरकार
जल संसाधन, नदी विकास एवं गंगा संरक्षण मंत्रालय
गंगा बाढ़ नियंत्रण आयोग

तीसरी मंजिल,
सिचाई भवन,
पटना - 800015

Date:26/03/2019

सेवा में,

Superintending Engineer, -
I&PH Circle, Nahan -
Tehsil-Nahan, Distt.-Sirmour -
Himachal Pradesh -
Pin-173001 -

विषय: Monitoring Report of Scheme Name : Providing flood and erosion protection measures along right bank of river Yamuna and its tributaries in tehsil-Paonta sahib; District: Sirmour; Estimated cost : Rs. 215.61 Crore"

**संदर्भ:EE, I & PH letter no. IPHP-DB-DPR-Yamuna & Giri Channelisation/2018
Date:19.01.2019**

महोदय,

Please refer to the letter under reference vide which DPR of Flood protection and anti-erosion scheme "Providing flood and erosion protection measures along right bank of river Yamuna and its tributaries in tehsil;-Paonta sahib, District: Sirmour; Estimated cost: Rs. 215.61 Crore" has been submitted for techno-economic appraisal.

Subsequently, a monitoring team of officers of GFCC headed by Chairman, GFCC along with officers of I&PH, Govt. of Himachal Pradesh had visited the site on 5th and 6th of March, 2019.

The monitoring report containing observations/recommendations of GFCC on above scheme is being sent to you for early compliance.

This issues with the approval of Chairman, GFCC, Patna.

Enclosures: As above. -

भव ी

(अजित कुमार)
निदेशक (एम पी - I)

प्रतिलिपि सूचनार्थ एवं आवश्क का वाही हेतु प्रेषित :

1. Engineer-in-Chief, Irrigation and Public Health Department, U.S. Club, Shimla, Himachal Pradesh, PIN - 1710012.
2. Executive Engineer, I&PH Division, Paonta Sahib, Tehsil- Paonta Sahib, Distt.-Sirmour, Himachal Pradesh, Pin-173025

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Monitoring Report of Scheme Name : Providing flood and erosion protection measures along right bank of river Yamuna and its tributaries in tehsil -Paonta Sahib, District: Sirmour; Estimated cost : Rs. 215.61 Crore” [Visit on 5th and 6th March 2019]

1. Introduction

Yamuna river originates from Yamunotri glacier (near Saptarishi Kund) at Bandar Punch in the Mussorie range of Lower Himalayas. The major tributaries of Yamuna River in Himachal Pradesh are Tons River which joins it near Kalsi of Uttarakhand. Bata river originates in the boulders below the Nahan ridge in the south western corner of Himachal Pradesh as the Jalmusa-Ka-khala. The total catchment of Yamuna River is about 1677.93 sq.km. up to confluence with Tons River.

The right bank of river Yamuna near Paonta Sahib, Himachal Pradesh is being subjected to erosion and submergence due to the floods causing loss to properties and agricultural lands along the river bank. CWPRS has conducted mathematical model studies for evolving suitable flood protection measures along the right bank of River Yamuna and its tributaries adjoining Paonta Sahib in district Sirmour, Himachal Pradesh and submitted a technical report. Based on this technical report the Irrigation and Public Health department of Himachal Pradesh has submitted a DPR in GFCC for techno-economic appraisal. This scheme has been approved by 52nd STAC (State Technical Advisory Committee) of Himachal Pradesh. The project cost is Rs. 215.61 Crores at the price level of October, 2017.

2. Salient features of the Project

The proposed project is to provide flood protection works and anti-erosion works at RD 0 to 32000 along the right bank of Yamuna River and its tributaries namely Tons River, Bata river & Jambu Khala.

i. Anti-erosion measures:-

Sl. No.	Particulars	Av. Height	Flood Protection (In Kms.)		
			Proposed Length		Total in Kms.
			Left Bank	Right Bank	
1	Yamuna River				
	Provide hill slope protection works	2.65	NA	22.00	22.00
	Eroded slope protection work	5.80	NA	5.50	5.50
	Stone in wire crates	7.55	NA	1.50	1.50
2	Tons River	4.15	NA	1.50	1.50
3	Bata River	5.80	3.00	3.00	6.00
	Total Length in Km(1+2+3)		3.00	33.50	36.50

ii. Flood Protection/Providing Embankments on total length:-

Sl. No.	Particulars	Av. Height	Flood Protection (In Kms.)		
			Proposed Length		Total in Kms.
			Left Bank	Right Bank	
1	Jambu Khala	2.95	7.72	6.58	14.30

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	Total Length in Km	2.95	7.72	6.58	14.30
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iii. Top width of embankment: 3.00 mtrs (As per CWPRS report 5460)

iv. Free board : As per CWPRS report 5460

Description	Mtrs
In Yamuna River	1.50 mtr
In tributaries	1.50 mtr

v. Apron : As per CWPRS report 5460

Stone wire crates of 0.30 mtrs thick in two layer under water or 1x1x0.5 dry bed away from LWL.

Description	Mtrs
Width in Yamuna River	2.0 to 6.0 mtrs
Width in Tributaries	2.00 mtrs to 3.00 mtrs

vi. Central clay core side slope: 1H:1V

Local Earth/Sand outside : 2H:1V

vii. Toe wall (River side): 3.0mx0.50mx1.00 to 3.0mx0.50x1.50m in stone wire crate

3. Brief Details of the Scheme

The scheme "Providing flood and erosion protection measures along right bank of river Yamuna and its tributaries in tehsil;-Paonta sahib, District: Sirmour; Estimated cost : Rs. 215.61 Crore" was submitted in GFCC on 19.01.2018 for techno-economic appraisal. A team of officers of GFCC headed by Chairman, GFCC along with officers of I&PH, Govt. of Himachal Pradesh visited the site on 5th and 6th of March 2019.

4. Site Inspection

The scheme was inspected by Monitoring team headed by Shri Arun Kumar Sinha, Chairman GFCC on 5th and 6th of March 2019. -

The present officers of GFCC Patna are as follows: -

- i. Shri Joginder Singh, Member (Planing), GFCC, Patna -
- ii. Shri Ajit Kumar, Director (MP-I), GFCC, Patna -
- iii. Shri Shailesh Kumar, Deputy Director, MP-II, GFCC, Patna -
- iv. Shri Vardan Anand, Assistant Director, MP-II, GFCC, Patna -
- v. Shri Santosh Kumar Sahoo, Junior Engineer, MP-II, GFCC, Patna -

The present officers of Irrigation Department, Govt. of I.P.H Shimla are as follows:

- i. Shri Joginder Singh Chouhan, SE, I&PH Nahan, Government of Himachal Pradesh .
- ii. Shri Ashwin Kumar Dhiman , Executive Engineer, I & PH Paonta Sahib, Government of Himachal Pradesh
- iii. Shri Devanand Pundir, Assistant Engineer, I & PH Paonta Sahib, Government of Himachal Pradesh .
- iv. Shri Sunil Kumar,Junior Engineer, I & PH Paonta Sahib, Government of Himachal Pradesh .

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5. Photographs

The photographs of the sites taken during the monitoring visit are enclosed at Annex-I.

6. Recommendations/Observations:

Following are the observations/recommendations of GFCC after examining the DPR and site visit:

1. Vide “salient Feature” and Report of Executive Engineer, Embankment Work on Tons river is not included. However, Hydraulic Data at Page No. 32, General Abstract of cost at page No. 83 and Details of Measurement of Embankment at Page No. 87 includes the Embankment works between RD 32000/3500 to 32000/2500. As per 52nd State TAC there is no proposal accepted on earthen embankment for Tons river. Project Authority are requested to get the proposal of embankment vetted through State TAC. .
2. Hydraulic Data:
 - i. In Page No. 27, the remarks ‘Provide Hill slope Protection works (Under Water)’ for RD between 26250 to 24500 & 24250 to 22500 may be changed as ‘Provide Hill slope Protection works (Away from LWL)’ as per CWPRS’ technical report and Hydraulic Data submitted in DPR. Similarly, details of measurement may be corrected and estimated cost may be updated accordingly.
 - ii. In Page No. 27 & 31 for the Hill slope protection away from LWL, dimension of apron may be suitably increased as per CWPRS’ technical report. Accordingly, details of measurement may be corrected and estimated cost may be updated.
 - iii. In Page no. 31, width of launching apron for RD 9750 to 5500 and RD 5500 to 00 is not commensurate with CWPRS’ technical report. Project Authority is requested to justify the same.
3. Vide Page 50, “ Weaving of wire crate with GI wire 5 mm thick in stone pitching on side of guide banks”, calculation of no. of stone crate may be corrected. Similarly, it may be checked and corrected for all other measurement calculation and cost may be updated accordingly.
4. Vide Page 56, 57 & 58, apron length may be corrected as per CWPRS’ technical report and cost may be updated.
5. Vide Page No. 62 & 64, “Weaving of wire crate with GI wire 5 mm thick”, total apron length may be corrected to 3m. Further calculation may also be corrected.
6. Vide Page No. 89, Para 4, “ Providing Geotextile filter in embankment below the stone crated apron”, average height may be corrected.
7. Relevant pages of Latest SOR may be included in DPR.
8. General Abstract of Cost may be signed by Chief Engineer.
9. Plan of project area showing bank line (at least 5 years) may also be submitted to this office.
10. A digitized (KMZ/KML files) index map showing north direction, location of proposed site with all the proposed works, benefited area, flood affected area, state boundary, nearest G-D site, villages, existing bank protection works and public properties may be furnished for the record purposes
11. Following certificate duly signed by concerned Chief Engineer is required in the DPR.
“Certified that design, data, information, maps & drawing including arithmetic calculations have been checked and verified”.
12. Certificate regarding non involvement of any forest land in the project, resettlement and rehabilitation (R&R) issue, if any.
13. Phasing of expenditure and completion schedule of scheme.
14. It is suggested that wherever river at LWL is within 5 meter of General bed level, slope protection works may be taken to LWL and width of launching apron may be adjusted accordingly.

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(Shailesh Kumar)
Dy. Director (MP-II)
GFCC, Patna

(Ajit Kumar)
Director (MP-I)
GFCC, Patna

(Joginder Singh)
Member (Planning), GFCC
GFCC, Patna

(A.K.Sinha)
Chairman,
GFCC, Patna