

**Himachal Pradesh  
Irrigation & Public Health Department**

No. IPH-SE-P&I-II-EE(D) -STAC/2013- 14/- **5263-94**  
To

Dated: **18.3.2014**

- |           |  |                   |
|-----------|--|-------------------|
| 1.        | The Engineer-in-Chief,<br>I&PH Department, U.S. Club, Shimla-1.  | Chairman          |
| 2.        | Representative of the Chairman,<br>Ganga Flood Control Commission,<br>Sinchai Bhawan, 3 <sup>rd</sup> Floor,<br>Patna (Bihar)-800015.      | Member            |
| 3.        | Representative of the Secretary to the<br>GOI, Ministry of Shipping and Transport,<br>(Road Wing) Transport Bhawan, New<br>Delhi.          | Member            |
| 4.        | Representative of the Principal Secretary<br>(Finance) to the H.P., Shimla-171002.   | Member            |
| 5.        | Representative of the Chief Engineer<br>(F.M.), CWC, Sewa Bhawan, 8 <sup>th</sup> floor,<br>R.K. Puram, New Delhi.                         | Member            |
| 6.        | Representative of the Principal Chief<br>Conservator of Forest H.P., Talland,<br>Shimla-171002.  | Member            |
| 7.        | Representative of the Director of<br>Agriculture H.P., Nalagarh House,<br>Boiluegang, Shimla-171005.                                       | Member            |
| 8. to 11. | The Chief Engineer, I&PH Department<br>(MZ,DZ,HZ,SZ).  | Member            |
| 12.       | Regional Director, Govt. Of India, MOWR,<br>Central Ground Water Board,<br>Dove Cottage, Ram Nagar, Near Post<br>Office Dharamshala-176215 | (Special Invitee) |
| 13.       | Director, (M&A)<br>Directorate, CWC, MOWR, Govt of India,<br>SDA Complex, Block No. 10, Shimla-9.  | (Special Invitee) |
| 14.       | Chief Engineer, (D&M), I&PH Department,<br>U.S. Club, Shimla-1.  | (Special Invitee) |

**Subject:- Minutes of 45<sup>th</sup> meeting of State Technical Advisory Committee (STAC) for Flood protection works, AIBP and Repair, Renovation & Restoration of Water Bodies held on 22.02.2014.**

**Reference:- This Office letter No. IPH-SE-P&I-II-EE(D) – STAC/2013 – 4954-4977 dated 19.02.2014**

Sir/ Madam,

Enclosed please find herewith the Minutes of 45<sup>th</sup> meeting of State Technical Advisory Committee (STAC) for Flood protection works, AIBP and Repair, Renovation & Restoration of Water Bodies held on 22<sup>nd</sup> February, 2014 at 12:00 P.M. in the Conference hall Jal Bhawan, Kasumpti, Shimla-9, under the Chairmanship of the Engineer –in- Chief, IPH Department for information and necessary action please.

Encls.: as above.

  
**Member Secretary cum  
Superintending Engineer,  
P&I-II, Jal Bhawan,**


**Copy alongwith Minutes of Meeting is forwarded for information and necessary action to:-**

The Addl. Chief Secretary (I&PH) to the Government of H.P., Shimla – 2.

All the Chief Engineers, under IPH Department.

All the Superintending Engineers, under IPH Department in H.P.

Superintending Engineer (Works), IPH Department, U.S. Club Shimla-1.

  
**Member Secretary cum  
Superintending Engineer,  
P&I-II, Jal Bhawan,  
Kasumpti, Shimla-9.**

**Himachal Pradesh  
Irrigation & Public Health Department**

No. IPH-SE-P&I-II-EE(D) –STAC/2013- 14/  
To

5263-94

Dated: 13.3.2014

- |           |  |                   |
|-----------|--|-------------------|
| 1.        | The Engineer-in-Chief,<br>I&PH Department, U.S. Club, Shimla-1.  | Chairman          |
| 2.        | Representative of the Chairman,<br>Ganga Flood Control Commission,<br>Sinchai Bhawan, 3 <sup>rd</sup> Floor,<br>Patna (Bihar)-800015.      | Member            |
| 3.        | Representative of the Secretary to the<br>GOI, Ministry of Shipping and Transport,<br>(Road Wing) Transport Bhawan, New<br>Delhi.          | Member            |
| 4.        | Representative of the Principal Secretary<br>(Finance) to the H.P., Shimla-171002.   | Member            |
| 5.        | Representative of the Chief Engineer<br>(F.M.), CWC, Sewa Bhawan, 8 <sup>th</sup> floor,<br>R.K. Puram, New Delhi.                         | Member            |
| 6.        | Representative of the Principal Chief<br>Conservator of Forest H.P., Talland,<br>Shimla-171002.  | Member            |
| 7.        | Representative of the Director of<br>Agriculture H.P., Nalagarh House,<br>Boiluegang, Shimla-171005.                                       | Member            |
| 8. to 11. | The Chief Engineer, I&PH Department<br>(MZ,DZ,HZ,SZ).  | Member            |
| 12.       | Regional Director, Govt. Of India, MOWR,<br>Central Ground Water Board,<br>Dove Cottage, Ram Nagar, Near Post<br>Office Dharamshala-176215 | (Special Invitee) |
| 13.       | Director, (M&A)<br>Directorate, CWC, MOWR, Govt of India,<br>SDA Complex, Block No. 10, Shimla-9.  | (Special Invitee) |
| 14.       | Chief Engineer, (D&M), I&PH Department,<br>U.S. Club, Shimla-1.  | (Special Invitee) |

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**Reference:- This Office letter No. IPH-SE-P&I-II-EE(D) – STAC/2013 – 4954-4977 dated 19.02.2014**

Sir/ Madam,

Enclosed please find herewith the Minutes of 45<sup>th</sup> meeting of State Technical Advisory Committee (STAC) for Flood protection works, AIBP and Repair, Renovation & Restoration of Water Bodies held on 22<sup>nd</sup> February, 2014 at 12:00 P.M. in the Conference hall Jal Bhawan, Kasumpti, Shimla-9, under the Chairmanship of the Engineer –in- Chief, IPH Department for information and necessary action please.

Encls.: as above.

  
**Member Secretary cum  
Superintending Engineer,  
P&I-II, Jal Bhawan,**

**Copy alongwith Minutes of Meeting is forwarded for information and necessary action to:-**

The Addl. Chief Secretary (I&PH) to the Government of H.P., Shimla – 2.

All the Chief Engineers, under IPH Department.

All the Superintending Engineers, under IPH Department in H.P.

Superintending Engineer (Works), IPH Department, U.S. Club Shimla-1.

  
**Member Secretary cum  
Superintending Engineer,  
P&I-II, Jal Bhawan,  
Kasumpti, Shimla-9.**

**MINUTES OF 45<sup>th</sup> MEETING OF STATE TECHNICAL ADVISORY COMMITTEE (STAC) FOR  
FLOOD PROTECTION WORKS, REPAIR, RENOVATION & RESTORATION OF WATER  
BODIES AND IRRIGATION SCHEMES (AIBP)  
HELD ON 22.02.2014**

The 45<sup>th</sup> meeting of State Technical Advisory Committee (STAC) was convened on 22.02.2014 under the Chairmanship of Engineer-in-Chief, Irrigation & Public Health Department, Himachal Pradesh at Jal Bhawan, Kasumpti, Shimla. The list of participants is as per **Annexure- "A"**.

At the outset, the Member Secretary STAC cum Superintending Engineer P&I-II welcomed all the participants and with the permission of the chair started the meeting as per agenda. Each proposal was discussed in the meeting and decisions arrived at are as under:-

**AGENDA ITEM NO.: 1      FLOOD PROTECTION WORKS OF IPH CIRCLE NAHAN  
Providing Flood Protection work to village Kishanpura (Near  
GPS Kishanpura) in Tehsil Paonta Sahib Distt. Sirmour (HP)**

Wire crated embankment with apron was proposed in a stretch of 360 Rmt along the left bank and 360 Rmt Right Bank of Jammu Ka Khalla, in village Kishanpura. The estimate has been framed based upon analysed rates adopting latest market/ labour rates for an amount of Rs. 85,92,800/-. The proposed works shall protect agriculture land of 65 Bigha (4.94 Hectare). It was proposed to provide 150 mm thick CC Wall in 1:6:12 in between the two layers of wire crate. It was suggested to provide this wall on one side of the embankment rather than between two layers. The necessary modifications suggested were incorporated in the estimate and the proposal was put up for the approval of STAC. After detailed discussion and deliberation, the committee approved the proposal.

**AGENDA ITEM NO: 2      Minor Irrigation Schemes for inclusion/ funding under  
AIBP in respect of HP State – List Enclosed as per  
Annexure- "B".**

The proposal for each minor irrigation schemes for inclusion under AIBP was discussed in detail alongwith the salient features. It was suggested that following points may be taken care of in general for all schemes.

- (a) The Power Availability certificate from HPSEB shall be attached for all Lift Irrigation Schemes.
- (b) The farmers to be benefited from each scheme shall be mentioned for all Irrigation Schemes.

- (c) The source plan showing all schemes and projects (completed, ongoing & proposed) 10 km upstream and downstream of the proposed head works shall be attached with each DPR.

However some schemes have particular observations, which are discussed below:

1. LIS upto village Hurla in Tehsil & District Kullu (H.P.)
  - i. The cost per hectare is Rs. 2.49 lakh per hectare which is almost at par with prescribed norms of AIBP and the provision for desilting arrangement is to be included. It was decided to prepare the estimate for all components irrespective of the estimated cost of the schemes. However, the proposal for inclusion under AIBP shall be forwarded to centre Government for the amount within AIBP guidelines.
  - ii. The arrangements at head works needs to be properly made as the source is river Beas and for 1<sup>st</sup> stage the static head mentioned is 0.55 mtr only, which needs clarification.

2. LIS Kuklah to Latogli in G.P. Saroa in Tehsil Chachiyot District Mandi (H.P.).

3. LIS Thach Shawla in G.P. Tandi in Tehsil Chachiyot District Mandi (H.P.)

SE, Sundernagar explained the proposals and informed that the schemes have high Benefit to Cost ratio as the CCA covered has the very high potential for off-seasonal cash crops. The committee approved the proposals after detailed deliberations.

4. LIS Panjano to Chhandyara in G.P. Pangna in Tehsil Karsog District Mandi (H.P.)

It was decided to review the proposal as the Benefit to Cost ratio was very high and to include the left out provisions in the estimate.

5. LIS Shidhpur 2nd stage Tehsil Sarkaghat & District Mandi (H.P.)

The proposal was dropped as it was not presented by any of the field functionary as EE/SE was not present.

6. LIS to G.P. Anti from Anti Khad (for horticulture land) in G.P. Anti Tehsil Jubbal District Shimla (H.P.)

7. Providing LIS for Horticulture land from Giri Khad to Devgarh in GP Devgarh Tehsil Kotkhai, Distt Shimla (HP)

8. Providing LIS for Horticulture land from Chagaownti Khad to Tharmala in GP Himri and covering adjoining portions of GP Rawalakiar & Ramnagar, Tehsil Kotkhai, Distt Shimla (HP)

9. Providing LIS for all villages of GP Kuthar, Ghorna, Bagri and Basadhar, Tehsil Theog, Distt Shimla (HP)

It was decided to review the proposals due to following reasons:

- i. The Distribution system was designed with GI Pipes instead of HDPE Pipes. The same is to be designed for both keeping in view the site conditions.
- ii. The pumping machinery and rising main is to be redesigned keeping in view the availability of pumps in market as per design duty heads.
- iii. The composite key Plan of the scheme is to be prepared.
- iv. The name of the scheme shall be changed suitably.

**AGENDA ITEM NO: 3            CAD Proposals of IPH Circle Nurpur – Sidhatha & Shahnehar Project.**

SE, Nurpur explained the CAD proposals for Sidhatha & Shahnehar Project with the help of power point presentation. The committee has detailed deliberations and discussed the schemes w.r.t. cost norms under AIBP and arrived at following decisions:

1.     DPR of CAD Works of Sidhatha MIP.

It was decided to complete the CAD works in 2 years instead of 4 years as proposed or with the target to complete parri passu (with a maximum of one year relaxation) with the works under AIBP. The proposal was approved.

2.     Revised DPR for C/o CAD works of Shahnehar Project in Tehsil Fatepur & Indora, Distt Kangra (HP)

The proposal was approved and matter is to be taken up with top priority for the approval from Gol.

**AGENDA ITEM NO: 4            Extension, Renovation & Modernisation (ERM) Proposal under AIBP for year 2014-15.**

The proposal for ERM for providing Sprinkler Irrigation System of Changer Area MIS from Anandpur Hydel Channel in Tehsil Shri Naina Devi, Distt Bilaspur was discussed in detail and it was decided to exclude the provision of Sprinklers and HDPE/ GI pipes, as same shall be considered in separate DPR for CAD works.

**AGENDA ITEM NO: 5            Repair, Renovation & Restoration of Water Bodies.**

The proposal for Providing Irrigation facilities through construction of water bodies in various Gram Panchayats under IPH Division, Shimla – 1 , Sub Division Koti, (HP) received during the meeting was discussed with the permission of the chair and following decisions were arrived at:

The guidelines issued by Ministry of Water Resources for Repair, Renovation & Restoration (RRR) of Water Bodies in October, 2013 are to be adhered alongwith the compliance of the check list provided in the same guidelines. EE IPH Division, Shimla – 1 was asked to amend the DPR accordingly.

Meeting ended with a vote of thanks to the chair.

LIST OF PARTICIPANTS FOR THE 45<sup>th</sup> MEETING OF STATE TECHNICAL ADVISORY COMMITTEE (STAC) FOR FLOOD PROTECTION WORKS, REPAIR RENOVATION & RESTORATION OF WATER BODIES AND IRRIGATION SCHEMES (AIBP) HELD ON DATED 22.02.2014 IN THE CONFERENCE HALL AT JAL BHAWAN, KASUMPTI, SHIMLA

S.No	Name and Designation	
1.	Er. R. K. Sharma, Engineer-in-Chief, I&PH Department U.S. Club, Shimla-1.	Chairman
2.	Er. Ashwani Gupta, Chief Engineer, I&PH Department Shimla Zone.	Member
3.	Er. R. K. Malhotra, Chief Engineer (D&M), I&PH Department U.S. Club, Shimla-1.	Special Invitee
4.	Sh. Anil Sharma Additional Director(Fin) Nominee of Special Secretary (Fin)	Member
5.	Sh. D. K. Vij, Assistant Conservator of Forests O/o Addl. Pr CCF(Soil)	Member
6.	Sh. Shyam Singh Thakur, ASCO (H/Q), Directorate of Agriculture, HP Shimla	Member
7.	Sh. P Dorje Gyamba, Director, CWC Shimla	Special Invitee
8.	Er. Naveen Puri, Superintending Engineer, P&H Jal Bhawan, Kasumpti Shimla-9.	Member Secretary
9.	Er. Rajesh Bakshi, Superintending Engineer, IPH Circle, Nurpur	
10.	Er. L.R Choudhary, Superintending Engineer, IPH Circle, Sunder	
11.	Er. R.K Varmani, Superintending Engineer, IPH Circle Bilaspur	
12.	Er. B.R Sharma, Superintending Engineer, IPH Circle Nahan	
13.	Er. Chatar Singh, Executive Engineer (D), IPH Circle Kullu	
14.	Er. Anil Mehta, Executive Engineer IPH Division No-1 Kasumpti,	
15.	Er. S.S Kaushal, Executive Engineer, SNP Sansarpur Terrace	
16.	Er. J.S Sodhi, Executive Engineer, SMIP Division Jawali	
17.	Er. P.R Chauhan, Executive Engineer, IPH Division Nohra Dhar	
18.	Er. Mahesh Sharma, Executive Engineer, IPH Division Poanta Sahib	
19.	Er. Avinder Singh Chadha, Executive Engineer, CAMLIP Bassi	
20.	Er. Ravinder Kumar Sharma, Executive Engineer IPH Division Jubbal	
21.	Er. Basant Rathore, Assistant Engineer, IPH Sub Division Koti	
22.	Er. Ajay Verma, Assistant Engineer, IPH Sub Division Sainj	
23.	Er. A.K Awasthi, Assistant Engineer, SMIP Jawali	



## APPROVED/ PROPOSED SHELF OF MINOR IRRIGATION SCHEMES UNDER AIBP FOR THE YEAR 2014-15 TO 2015-16 DURING 45TH STAC MEETING

Sr. No.	Name of scheme	District	Source	Estimated cost (in Lacs)	Total CCA (in hect)	Cost per hectare (in Lacs)	B.C.Ratio	Pumping Machinery	Length of R/Main (in Rmt)	Dia of R/Main (mm)	Distribution System (in Rmt)	Static head (in mtrs)	Remarks
1	LIS up to village Hurta in Tehsil & District Kullu (H.P.)	Kullu	Beas River	85.23	34.23	2.49	1.84:1	1st Staget 10 HP (2 sets) 2nd stage 80 HP (2 sets)	700	200mm	HDPPE Pipe=2990	1st stage = 0.55 2nd stage = 109.05	
2	LIS Dharnu,Ropa, Shari and Sidwan in Tehsil Banjar District Kullu	Kullu	Tirthan River	136.45	54.80	2.49	2.07:1	2x 300 HP	735	300 mm	Pucca Main Channel=1740 Rmt Field Channel =3288 Rmt	311.60	
3	LIS to village Stangidhar Khubu in Nirmand Block District Kullu (H.P.)	Kullu	Kurpan	186.24	83.48	2.23	1.83:1	2 X 200 HP	720	250 mm	HDPPE Pipe=5570 MSERW	238.50	
<b>IPH Circle - Sundernagar</b>													
4	LIS Kukiah to Latogli in G.P. Saroa in Tehsil Chachiyot District Mandi (H.P.)	Mandi	Bhekhal	60.22	24.38	2.47	4.04:1	2 X 40 HP	550	150 mm	HDPPE Pipe=1530	173.40	
5	LIS Thach Shawa in G.P. Tandi in Tehsil Chachiyot District Mandi (H.P.)	Mandi	Bhakhal Nallah	68.59	27.74	2.47	4.43:1	2 X 50 HP and 2 X 5 HP	505	150 mm	HDPPE Pipe=2765 Rmt	209.40	
6	LIS Panjano to Chhandyara in G.P. Pangna in Tehsil Karsog District Mandi (H.P.)	Mandi	Pangna	89.77	54.29	1.65	9.15:1	1 X 110 HP	550	200 mm	GI Pipe = 1800Rmt	125.00	
7	C/O LIS Shikawari in G.P. Shikawari in Tehsil Thunag District Mandi (H.P.)	Mandi	Bakhal	288.20	120	2.40	5.91:1	3 X 200 HP	1800	200 mm	HDPPE Pipe 18170 Rmt	396.00	
8	C/O FIS Chirdi,Dhar, Bodhal, Chadru, Chambi, Katerawari and Bharati Tehsil Sundernagar District Mandi (H.P.)	Mandi	Khad	416.30	172.89	2.40	5.81:1	-	-	-	HDPPE = 2425 Rmt	-	
9	Providing FIS Jaral to Jugahan in Tehsil Sundernagar, Distt Mandi (HP)	Mandi	Khad	200.37	87.47	2.39	5.38:1	-	-	-	Pucca Main Channel=3050 Rmt HDPE Pipe = 5655 Rmt	-	
<b>IPH Circle - Hamirpur</b>													
10	LIS Shidhpur 2nd stage Tehsil Sarkaghat & District Mandi (H.P.)	Mandi	Beas River	66.18	33.60	1.97	1.38:1	R/water stage 12 HP(1set) 1st stage 35 HP (2 set)	1640	150 mm	HDPPE Pipe=6190	Raw water =31 1st stage = 186.55	
<b>IPH Circle - Rohru</b>													
11	LIS to G.P.Anti from Anti Khad (for horticulture land) in G.P. Anti Tehsil Jubbal District Shimla (H.P.)	Shimla	Anti,Rumnu & Nallah	540.00	329.56	1.64	8.89:1	2 X 10 HP	1500	50 mm	G.I.Pipe 17303	450.00	

Sr. No.	Name of scheme	District	Source	Estimated cost (in Lacs)	Total CCA (in hect)	Cost per hectare (in Lacs)	B.C.Ratio	Pumping Machinery	Length of R/Main (in Rmt)	Dia of R/Main	Distribution System (in Rmt)	Static head (in mtrs)	Remarks
<b>E IPH Circle - Shimla - 9</b>													
12	LIS to village Sheel Padhechi in G.P. Kotli Tehsil & District Shimla (H.P.)	Shimla	Bharani Nallah	25.02	10.05	2.49	2.56:1	2 X 30 HP	345	100 mm	HDPPE Pipe 450 Rmt	174.00	
13	Providing LIS for all villages of GP Kuthar, Ghorna, Bagri and Basadhar, Tehsil Theog, Dist Shimla (HP)	Shimla	Bashari Khad	665.14	335	1.99	8.30:1	1st Stage 2 x 155 HP 2nd Stage 2 x 80 HP 3rd Stage 2 x 50 HP	1st Stage 3000 Rmt 2nd Stage 2000 Rmt 3rd Stage 2400 Rmt	150/125 mm	GI Pipe		
14	Providing Lift Irrigation Scheme for village Sandhoot Kakret, Dhanudhuti, Chidi, Lagroo, Salana, Sari etc. and other group of villages in GP Thari & Rampuri, Tehsil & Dist Shimla (HP)	Shimla	Dev Ghori Khad	500.4	201.67	2.48	3.77:1	1st Stage 2 x 285 HP 2nd Stage 2 x 195 HP 3rd Stage 2 x 135 HP	1st Stage 1620 Rmt 2nd Stage 2985 Rmt 3rd Stage 1575 Rmt	300/250 mm			
14	LIS Lakhoi Rahud and adjoining area from Giri River in Tehsil & Dist Shimla (HP)	Shimla	Giri Khad	56.13	18	3.12	2.26:1	1 x 80 HP and 1 x 2 HP	1260 Rmt	150 mm	HDPPE Pipe 2905 Rmt	350.00	
15	Providing LIS from Giri Khad to Dewgarh in GP Dewgarh Tehsil Kotkhai, Dist Shimla (HP)	Shimla	Giri Khad	214.85	90.21	2.38	3.56:1	2 x 1 HP 1st Stage 2 x 10 HO 2nd Stage	Booster Stage 15 Rmt 1st Stage	50, 40 & 32	GI Pipe 22691 Rmt	15m, 364m & 401m respectively	
16	Providing LIS from Chagaowriti Khad to Tharmala in GP Himri and covering adjoining portions of GP Rawalakar & Ramnagar, Tehsil Kotkhai, Dist Shimla (HP)	Shimla	Chagaowriti Khad	850.58	433.8	1.96	6.73:1	2 x 3 HP 1st Stage 2 x 35 HP 2nd Stage 2 x 35 HP	Booster Stage 48 Rmt 1st Stage 2200 Rmt	125, 80, 80 & 80 mm respectively	GI Pipe 65635 Rmt	15m, 364m & 401m respectively	
<b>F IPH Circle - Dharamshala</b>													
17	Construction of FIS Rod Kuhl in GP Rajiana in Teh & Dist Kangra (HP)	Kangra	Daroon Khad	155.48	88.34	1.76	2.77:1	-	-	-	Main Channel 6450 Rmt		
18	Construction of FIS Machhan Di Kuhl to village Raserh, Machhan, Tikkar, Uthragran & village Tangroli kin GP Tang in Teh Dharamshala Dist Kangra (HP)	Kangra	Eco Khad	210.53	170	1.24	9.01:1	-	-	-	Main Channel 4217 Rmt		
19	Construction of FIS Pathar Ambari Kuhl in Teh & Dist Kangra (HP)	Kangra	Baner Khad	179.9	174	1.03	4.82:1	-	-	-	Main Channel 4313 Rmt		
20	Construction of Machhul Kuhl in Teh Dharamshala Dist Kangra (HP)	Kangra	Eco Khad	95.74	142	0.67	9.68:1	-	-	-	Main Channel 3480 Rmt		

Sr. No.	Name of scheme	District	Source	Estimated cost (in Lacs)	Total CCA (in hect)	Cost per hectare (in Lacs)	B.C.Ratio	Pumping Machinery	Length of R/Main (in Rmt)	Dia of R/Main	Distribution System (in Rmt)	Static head (in mtrs)	Remarks
21	C/O LIS Kharot in Tehsil Palampur distt. Kangra H.P.	Kangra	Neugal Khad	82.36	35.4	2.33	3.74:1	1st stage= 2x 5=10 hp 2nd stage= 2x30=60 hp	1st stage=45 Rmt. 2nd stage 615 mtr	200mm	Pucca main =1560 rmt.	1st stage=6.98 mtr 2nd stage 67.50 mtr	
22	C/O LIS Noura in Tehsil Palampur Distt. Kangra H.P.	Kangra	Neugal Khad	207.7	101.39	2.05	3.82:1	1st stage=2x20=40 hp 2nd stage Phase 1st=2x 50=100hp Phase 2nd= 2x 75=150 hp	1st stage=45rmt. 2nd stage Phase 1st 990 rmt. 2nd phase=14 70 rmt.	1st stage=300 mm 2nd stage=ph- I=200mm, ph-II=250 mm	HDPE Pipe 2955 Rmt	1st stage=11.75 mtr 2nd stage Ph-I=102.84 mtr. ph-II= 112.54 mtr	
23	C/O FIS Kathul khal in Tehsil Palampur distt. Kangra H.P.	Kangra	Neugal Khad	193.95	106.7	1.82	3.74:1	---	---	---	Pucca Channel =6030 rmt.	---	
24	Providing distribution to LIS Thural in Tehsil Palampur distt. Kangra H.P.	Kangra	Neugal Khad	181.98	185	0.98	2.90:1	---	---	---	HDPE pipe =14430 rmt.	---	
25	Providing distribution to LIS Purbal in Tehsil Palampur distt. Kangra H.P.	Kangra	Neugal Khad	66.01	71	0.93	2.87:1	---	---	---	HDPE pipe =14679 rmt.	---	
26	C/O LIS Jagroop Nagar in Tehsil Jaisinghpur Distt. Kangra H.P.	Kangra	River Beas	241.68	103	2.35	3.47:1	1st stage= 4x 10.5=45 hp, 2nd stage= 2x100=200 hp	1st stage= 90 and 450 mtr, 2nd 1950 rmt.	200 and 350 mm	HDPE pipe =5145 rmt.	1st stage=11.20 mtr and 12 mtr, 2nd stage=102.20 mtr	
27	C/O LIS Satekh Lianda in Tehsil Jaisinghpur, distt. Kangra H.P.	Kangra	River Beas	208.42	92.78	2.25	3.52:1	1st stage= 2x 20=40 hp, 2nd stage Ph-I = 2x110=220 hp, ph-II = 2x 25 =50 hp	1st stage= 300 rmt 2nd stage ph-I =850 Ph-II =510 rmt.	1st stage=300 mm 2nd stage=ph-I=250mm, ph-II =200 mm	RCC pipe = 9790 rmt.	1st stage = 13.20 rmt. 2nd Stage ph-I=146.74 rmt., Ph-II = 68.19 rmt.	
<b>Total:</b>				<b>6273.42</b>	<b>3380.78</b>	<b>1.86</b>							