



# Environmental Monitoring Report

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Project Number: 47229-001  
January 2018

Period: January 2017 – June 2017

## IND: Uttarakhand Emergency Assistance Project

Submitted by

Project Implementation Unit, Uttarakhand Jal Santhan, Jal Bhawan, Dehradun,  
Uttarakhand

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Asian Development Bank



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(Urban Water Supply Sector)  
Uttarakhand Emergency Assistance Project (UEAP)  
Uttarakhand Jal Sansthan

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Ref: 427/PIU-UEAP/58/2017-18

Dated: 25/10/2017

To,

The Country Director  
South Asia Department, India Resident Mission,  
4 San Martin Marg, Chanakyapuri  
New Delhi - 110021.



**Sub.: Loan No. 3055 IND - Uttarakhand Emergency Assistance Project (UEAP) - SIXTH REPORT SEMI - ANNUAL ENVIRONMENT MONITORING REPORT (Period January to June 2017).**

Dear Ma'am,

With reference to above kindly find enclosed herewith SIXTH REPORT SEMI - ANNUAL ENVIRONMENT MONITORING REPORT (Period January to June 2017) for your review & approval.

Yours Sincerely

Enclosure: As above.

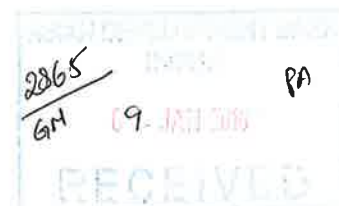
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**Uttarakhand Emergency Assistance Project (UEAP)  
Water Supply Sub-projects  
(ADB Loan No: 3055-IND)**



**SIXTH REPORT**

**SEMI - ANNUAL ENVIRONMENT MONITORING REPORT**

**(Period January to June, 2017)**

**October, 2017**

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## ABBREVIATIONS

|                   |   |
|-------------------|---|
| ADB               | Asian Development Bank                        |
| BOD               | Bio Chemical Oxygen Demand                    |
| CO                | Carbon Mono Oxide                             |
| CFE               | Consent for Establishment                     |
| CH <sub>4</sub>   | Methane                                       |
| DO                | Dissolve Oxygen                               |
| dB                | Decibel                                       |
| DSC               | Design and Supervision Consultant             |
| IEE               | Initial Environmental Examination             |
| EA                | Executing Agency                              |
| EIA               | Environmental Impact Assessment               |
| EC                | Environmental Clearance                       |
| GLSR              | Ground Level Surface Reservoir                |
| GoI               | Government of India                           |
| GoU               | Government of Uttarakhand                     |
| GR                | Grievance Redressal                           |
| Ha                | Hectare                                       |
| HDPE              | High Density Poly Ethylene                    |
| HFL               | High Flood Level                              |
| Km                | Kilometer                                     |
| Leq               | Equivalent continuous noise level             |
| Mg                | Milligram                                     |
| MFF               | Multitranchise Financing Facility             |
| MoEF              | Ministry of Environment & Forests             |
| MLD               | Million Litter Per day                        |
| Mn                | Million                                       |
| M                 | Meter   |
| mm                | Millimeter                                    |
| mg/l              | Milligram per Liter                           |
| m <sup>3</sup>    | Cubic meter                                   |
| NAAQS             | National Ambient Air Quality Standards        |
| NO <sub>x</sub>   | oxides of Nitrogen                            |
| NA                | Not Applicable                                |
| O & M             | Operation and maintenance                     |
| PIU               | Project Implementation Units                  |
| PM <sub>2.5</sub> | Particulate matter size less than 2.5µm       |
| PM <sub>10</sub>  | Particulate matter size less than 10µm        |
| PMU               | Project Management Unit                       |
| PPE               | Personal Protective Equipments                |
| PVC               | Poly Vinyl Chloride                           |
| PWD               | Public Works Division                         |
| RCC               | Reinforced Cement Concrete                    |
| RoW               | Right of Way                                  |
| RP                | Resettlement Plan                             |
| SBR               | Sequential Batch Reactor                      |
| SC                | Scheduled Castes                              |
| SEIAA             | State Environment Impact Assessment Authority |
| SO <sub>2</sub>   | Sulphur dioxides                              |
| SOP               | Standard Operational Procedures               |
| SPCB              | State Pollution Control Board                 |
| SPS               | Safeguard Policy Statements                   |

|        |  |
|--------|--|
| SS     | Suspended Solids   |
| ST     | Scheduled Tribes   |
| UDD    | Urban Development Department                                     |
| UEAP   | Uttarakhand Emergency Assistance Project                         |
| UEPPCB | Uttarakhand Environmental Protection and Pollution Control Board |
| UJS    | Uttarakhand Jal Sansthan   |
| UPJN   | Uttarakhand Peyal Jal Nigam                                      |
| U.P    | Uttar Pradesh  |
| UPCL   | Uttarakhand Power Corporation Limited                            |

## I. INTRODUCTION

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### A. Background

1. In the month of June 2013, a severe flood and rain event occurred in Uttarakhand causing extensive damage to the state. The major affected areas are of Roads and bridges, Water Supply other infrastructure and livelihood. To assist in the rehabilitation works ADB decided to assist the Government of Uttarakhand in rehabilitating the various sectors. As part of this, ADB has provided a loan (No. 3055-IND) to the government of India. For smooth functioning of the various works **Uttarakhand Emergency Assistance Project (UEAP)** is devised. The UEAP will support the Government of India (GoI) and the Government of Uttarakhand (GoU) in their efforts to rehabilitate and reconstruct the damaged water supply system in 9 selected towns of Uttarakhand. The investment program will support: (i) Water supply; and (ii) Planning and design, institutional and policy development, capacity building and creating awareness.
2. The Project Management Unit (PMU) of Uttarakhand Emergency Assistance Project (UEAP) created for implementation of the said project under the Government of Uttarakhand (GoU) and the Project Implementation Units (PIU), Uttarakhand Jal Sansthan (UJS) will be provided with necessary consulting services under the proposed loan to strengthen their project design, management and implementation capabilities including mainly engineering design and construction supervision. The work in this Project is of emergency nature and has to be finished within stipulated time, so as to provide drinking water to affected population. The Executing Agency (EA), State Disaster Management Authority (SDMA) will work closely with the Implementing Agency (IA) Uttarakhand Jal Sansthan
3. Total 09 towns, 06 towns of Garhwal Region and 03 towns of Kumaun Region have been selected for implementation of water supply sub project of Assistance Project. Towns selected for implementation of water supply sub project in Garhwal regions are - Srinagar, Devprayag, Rudraprayag, Gauchar , Karnprayag and Uttarkashi . Towns selected for implementation of same subproject in Kumaun regions are - Dharchula, Kapkot and Bageshwar . Location of the project towns are shown in **Figure 1**





**Figure 1: Location of project towns in Uttarakhand**

4. To support implementation of the Program, UEAP have engaged STUP Consultants Pvt. Ltd. as Design & Supervision Consultant (DSC). Design and Supervision Consultant (DSC) firm assists Investment Project Management Unit (IPMU) and the respective Investment Project Implementation Units (IPIUs) to undertake necessary surveys and investigations, detailed engineering designs, quantity and cost estimation, preparation of bid documents, procurement activities, preparation of construction drawings, construction supervision including recording measurements, quality control, assisting community awareness and poverty alleviation program associated with the Project.
5. Three contractors – M/s Kashmirilal Construction P. Ltd and M/s R.K. Engineers Sales Ltd and M/S Uttaranchal Tube well Construction have been appointed to implement the subprojects. As per contract, M/s Kashmirilal Construction P. Ltd will implement the subproject in Kapkot, Bageshwar, Dharchula and Devprayag town and M/s R.K. Engineers Sales Ltd will implement the subproject in Rudrapur, Karnprayag, Gauchar, Uttarkashi and Srinagar town . M/S Uttaranchal Tubewell Construction will implement construction of 6 tube wells at the bank of Alaknanda in Srinagar town.

#### **B. Project Profile**

6. Up to 30<sup>th</sup> June, 2017, contract agreements were signed for all lots under 4 sub projects. Contractors have mobilized and working in all the project towns. Up to 30<sup>th</sup> June, 2017 contractors have done good progress in all subprojects and in some area considerable progress have been reported.
7. Scope of work for each subproject are as follows –

**Contract Package No. - UK/UEAP-UJS/WSS-KU/01/2014-15**

| Sn. | Name of Town | Works Proposed  |
|-----|--------------|---|
| 1   | Kapkot       | <ul style="list-style-type: none"> <li>Supply, Laying, Jointing, Testing &amp; Commissioning of 125 mm dia. MSERW lined Rising Main.</li> <li>Design, Supply, Erection of structural steel works for Bridge crossing.</li> <li>Design, Supply, Installation, Testing, Commissioning of Electro-chlorinator.</li> <li>Design, Supply, Installation, Testing, Commissioning of Electromagnetic flow meter.</li> <li>Design, Supply, Installation, Testing, Commissioning of Electromechanical works including Trial Run for a period of 3 months.</li> <li>Design, Supply, Installation, Testing, Commissioning of SCADA/Instrumentation works.</li> <li>Design, Construction, Testing, Commissioning, Trial Run for a period of 3 months of 1.4 MLD Infiltration Well at river Saryu including dewatering and diversion of water.</li> <li>Providing and Construction of Pump House over Infiltration Well or as required suitable for Pump House.</li> </ul>  |
| 2   | Bageshwar    | <ul style="list-style-type: none"> <li>Supply, Laying, Jointing, Testing &amp; Commissioning of 150mm dia. MSERW lined Rising Main including dismantling of existing 80 mm dia. GI Rising Main and hand over to Jal Sansthan at their store.</li> <li>Demolition of existing Raw and Clear Water pumping set including all electrical equipments, cable etc. at Kathayat Bada.</li> <li>Design, Supply, Installation, Testing, Commissioning of Electromechanical works including Trial Run for a period of 3 months at different locations.</li> <li>Instrumentation work at :               <ul style="list-style-type: none"> <li>(i) Proposed Infiltration Well Jalkal</li> <li>(ii) WTP at Thakurdwara</li> <li>(iii) WTP at Kathayatbada.</li> </ul> </li> <li>Design, Construction, Testing, Commissioning, Trial Run for a period of 3 months of 1.34 MLD Infiltration Well including diversion and dewatering of water at Jalkal Water Works.</li> <li>Provide &amp; Construction of Pump House over Infiltration Well or as required suitable for Pump House.</li> <li>Rehabilitation of WTP at Thakurdwara including Reconstruction of Alum Godown.</li> <li>Demolition of old intake structure/electrical/mechanical items at Jal Sansthan Water Works and old damaged Alum Godown and disposal of unserviceable material.</li> </ul> |
| 3   | Dharchula    | <ul style="list-style-type: none"> <li>Supply, Laying, Jointing, Testing &amp; Commissioning of Distribution &amp; Gravity Mains including Valves &amp; Valve Chambers.</li> <li>Demolition of Stone Masonry CWR &amp; Steel CWR.</li> <li>Construction of Uttaranchal Koop.</li> <li>Construction of Intake Chamber/source work.</li> <li>Design, Construction, Testing, Commissioning &amp; Trial Run for a period of 3 months of 1.728 MLD Horizontal Flow Roughing Filter.</li> <li>Design, construction, testing, commissioning of RCC CWRs.</li> </ul>  |

**Contract Package No. - UK/UEAP-UJS/WSS-GW/01**

| Sn. | Name of Town | Works Proposed   |
|-----|--------------|--|
| 1   | Rudraprayag  | <ul style="list-style-type: none"> <li>Supply, Laying, Jointing, Testing &amp; Commissioning of MSERW lined Gravity Transmission Main.</li> <li>Supply, Installation of 3 No. Uttaranchal Koops.</li> <li>Rehabilitation of RCC Intake Chambers.</li> <li>Construction of RCC Bridge to carry the pipeline across the stream.</li> <li>Replacement / Supply &amp; Laying of pipelines damaged due to flood.</li> <li>Construction of Office Building.</li> <li>Supply and Installation of Sluice Valves, Scour Valves and Air Valves.</li> <li>Providing, Fixing of RCC Valve Chamber for housing valves.</li> </ul> |

|   |             |  |
|---|-------------|--|
|   |             | <ul style="list-style-type: none"> <li>Supply and Installation of Bulk Water Meters.</li> <li>Road Restoration works.</li> </ul>   |
| 2 | Karanprayag | <ul style="list-style-type: none"> <li>Supply, Installation of 1 No. of Infiltration Well.</li> <li>Rehabilitation of RCC Intake Chambers.</li> <li>Supply, Laying, Jointing, Testing and Commissioning of MS ERW pipe of 200mm (ID) dia, 6mm thick for a length of 6000m from Well Site (0 chainage) to ITI Colony Proposed Tank (6000 chainage).</li> <li>Construction of RCC Bridge to carry the pipeline across the stream at different locations.</li> <li>Construction of CWR of 500KL capacity at Pujari Gaon location, 150 KL at GGIC and 35KL CWR at taxi stand (Near Petrol Pump).</li> <li>Replacement / Supply &amp; Laying of pipelines damaged due to flood.</li> <li>Construction of Office Building.</li> <li>Supply and Installation of Sluice Valves, Scour Valves and Air Valves.</li> <li>Providing, Fixing of RCC Valve Chamber for housing valves.</li> <li>Supply and Installation of Bulk Water Meters.</li> <li>Road Restoration works.</li> <li>Design, Supply, Installation, Testing, and Commissioning of Electromechanical works including trial run for a period of 3 months at different locations.</li> <li>Instrumentation work at Proposed Infiltration Well.</li> </ul>   |
| 3 | Gauchar     | <ul style="list-style-type: none"> <li>Supply, Installation of 1 No. of Infiltration Well.</li> <li>Rehabilitation of RCC Intake Chambers.</li> <li>Supply, Laying, Jointing, Testing and Commissioning of MS ERW pipe of 200mm dia, 6mm thick for a length of 3000m from Airport gate (0 chainage) to Main Bazaar (1500 chainage) on both side of Main Bazaar road.</li> <li>Replacement / Supply &amp; Laying of pipelines damaged due to flood.</li> <li>Construction of Office Building as the existing office building was partly damaged.</li> <li>Supply and Installation of Sluice Valves, Scour Valves and Air Valves.</li> <li>Providing, fixing of RCC Valve Chamber for housing valves.</li> <li>Supply and Installation of Bulk Water Meters.</li> <li>Road Restoration works.</li> </ul>   |
| 4 | Uttarkashi  | <ul style="list-style-type: none"> <li>Construction of RCC Cross Wall for a length of 20 meters and height of 1 Meter.</li> <li>Construction of Intake Chamber of size 1.0 M X 1.0 M X 1.0 M.</li> <li>Supply and Laying of 250mm dia MS ERW Pipeline for a length of 150 Meters from the outlet of intake chamber of Kohari Gad source.</li> <li>Supply and Laying of 200mm dia MS ERW Pipeline for a length of 1000 Meters for replacing existing damaged 200mm dia CI pipeline feeding to Gufiyara WTP.</li> <li>Supply and Laying of 250mm dia MS ERW Pipeline for a length of 650 Meters downstream of WTP at Jangara.</li> <li>Supply and Laying of 200mm dia MS ERW Pipeline for a length of 50 Meters downstream of Chiwa Gad Stream Junction.</li> <li>Supply and Laying of 200mm dia MS ERW Pipeline for a length of 130 Meters below the bed across Assi Ganga River before confluence point (Sangam) of rivers Assi Ganga and Bhagirathi including concrete encasing for pipeline.</li> <li>Supply and Laying of 100mm dia GI Pipeline for a length of 1500 Meters from Gufiyara WTP CWR to Tiloth and 500 Meters from Gufiyara CWR to Batwadi WTP CWR.</li> <li>Supply and Laying of 125mm dia MS ERW Pipeline for a length of 800 meters and 100mm dia GI Pipeline for a length of 1200 Meters from Gufiyara WTP CWR to Gyansu.</li> <li>Sluice Valves, Scour Valves and Air Valves are proposed to be installed.</li> <li>RCC Valve Chambers and Thrust Blocks / Anchor Blocks are proposed to be constructed.</li> <li>Drilling of new Tube wells (2 nos.) through Dual Rotary Method of 400mm dia for a depth of 45 meter including providing and fixing ERW MS casing pipe for a depth of 20 meter.</li> <li>Construction of 2 Nos. RCC Framed Pump Houses of 20 Sqm area each at Ramleela Maidan.</li> <li>Rising main of ERW MS 300mm dia pipeline for a length of 1300 meter</li> </ul> |

|   |           |   |
|---|-----------|---|
|   |           | <ul style="list-style-type: none"> <li>form Ramleela Maidan to 350 KL CWR at Gufiyara WTP.</li> <li>Supply and Fixing DI Non-return Valve, CI Bulk Water Meter, DI Sluice Valve at outlet pipeline from Tube Well inside each Pump House at Ramleela Maidan.</li> <li>Supply and Fixing DI Scour Valve for 300mm dia Rising Main near Ramleela Maidan.</li> <li>Supply and fixing DI Double Orifice Air Valve on 300mm dia Rising Main.</li> <li>Construction of RCC Valve Chambers for Scour Valve and Air Valves.</li> <li>Rehabilitation of 0.67 MLD WTP at Batwadi Road.</li> <li>Rehabilitation of 1.63 MLD WTP at Gufiyara.</li> <li>Rehabilitation of 4.58 MLD WTP at Jangara.</li> <li>Electrical Works.</li> </ul> |
| 5 | Devprayag | <ul style="list-style-type: none"> <li>Construction of RCC Cross Walls at Sources.</li> <li>Providing and Fixing Uttaranchal Koop.</li> <li>Supply and Laying of Transmission Mains.</li> <li>Construction of 50 KL and 100 KL CWRs.</li> <li>Supply and Laying of Distribution Pipelines.</li> <li>Supply and Installation of Valves and Water Meters.</li> <li>Construction of RCC Valve Chambers.</li> <li>Restoration of Roads.</li> <li>Construction of Office Building, Guest House Building, Staff Quarters Building.</li> </ul>   |

**Contract Package No. - UK/UEAP-UJS/WSS-GW/02/SRINAGAR (PAURI)**

| Name of Town | Works Proposed  |
|--------------|---|
| Srinagar     | <ul style="list-style-type: none"> <li>Construction of RCC Retaining Wall for Pump House.</li> <li>Design and Construction of RCC Framed Low Level Pump House.</li> <li>Providing and Fixing trolley / lifting arrangement for Low Level Pump House.</li> <li>Replacement of damaged raw water Pumps and Motors.</li> <li>Alteration of Existing Jack Well as High Level Pump House.</li> <li>Supply and Installation of New Raw Water Pumps in High Level Pump House (Existing Jack Well).</li> <li>Supply and Laying Raw Water Transmission Mains.</li> <li>Rehabilitation of 6 MLD Water Treatment Plant.</li> <li>Rehabilitation of 3.75 MLD Water Treatment Plant.</li> <li>Rehabilitation of 2.0 MLD Water Treatment Plant.</li> <li>Design and Construction of RCC Framed structure for Chlorine Room at existing WTP premises.</li> <li>Design, Supply and Installation of Chlorination System by Chlorine gas with Vacuum type Chlorinators for all three WTP's</li> <li>Supply and Installation of Clear Water Pumps in 6 MLD &amp; 3.75 MLD WTP Clear Water Pump Houses.</li> <li>Supply and Installation of Submersible Pumps for Infiltration Well.</li> <li>Supply and Laying Clear Water Transmission Main from Proposed Pump House.</li> <li>Supply and Installation of Clear Water Pumps at Tube Well site.</li> <li>Infiltration Well Site Protection Work by constructing RCC Gravity Retaining Wall.</li> <li>Supply and Laying Clear Water Transmission Mains from existing WTP to various reservoirs.</li> <li>Supply and Laying of Distribution pipelines with Pipe Appurtenances.</li> <li>Providing and Fixing House Service Connections.</li> <li>Road Restoration Works.</li> <li>Design and Construction of 500KL RCC Sump and Clear Water Pump House at Infiltration Well site.</li> <li>Design and Construction of Tube Well near Govt. ITI College.</li> <li>Water Supply Rehabilitation and Augmentation Scheme – Srinagar and Pauri</li> <li>Design and Construction of Pump house over Infiltration Well.</li> <li>Design and Construction of New Clear Water Storage Reservoirs of 500KL &amp; 1000KL Capacities.</li> </ul> |

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Design and Construction of Office Cum Staff Quarters building at existing WTP premises.</li> <li>• Design, Supply, Installation, Testing, Commissioning of Electromechanical works including Trial Run for a period of 3 months.</li> <li>• Design, Supply, Installation, Testing, Commissioning of Instrumentation, Automation and SCADA works at WTP premises and proposed tube Well site including Trial Run for a period of 3 months.</li> </ul> |
|--|---|

**Contract Package No. - UK/UEAP-UJS/WSS-GW/02-01/SRINAGAR**

| Name of Town | Works Proposed  |
|--------------|---|
| Srinagar     | <ul style="list-style-type: none"> <li>• Design and Construction of Tube Wells by drilling of bore hole using Direct Rotary Method/RR/Dual Rotary/Percussion method , lowering of well assembly, development of bore well, performance (yield) test, design, supply and installation of Mechanical equipment to suit yield test results (single stage pumping), testing, commissioning, laying of required lengths of pipe line up to termination / destination points, as per site requirements, along with related mechanical as required, including Civil Works i.e Construction of Pump houses, chamber, Construction of Boundary Walls, operation and maintenance of tube wells for a period of 1 year and allied works in Srinagar..</li> </ul> |

**Contract Package No. - UK/UEAP-UJS/WSS-GW/ 02-02 Srinagar (AMR)**

| Name of Town | Works Proposed   |
|--------------|--|
| Srinagar     | Replacement of connection pipes for proper piping arrangement from water mains to consumer household upto the AMR meter and installation of AMR meter for proper consumer connections including remote reading of volumetric water consumptions at Srinagar. |

**Contract Package No. - UK/UEAP-UJS/WSS-KU/01-01 (Tank & pipe line)**

| Name of Town | Works Proposed   |
|--------------|--|
| Kapkot       | Additional works of GLSRs 2 nos and distribution network at Kapkot |

**C. Project & Report Purpose**

- Water Supply sub projects which are under implementation has been classified by ADB as environmental assessment Category B (some negative impacts but less significant than category A) and the impacts of sub - projects were assessed through Initial Environmental Examination (IEE), prepared according to ADB Safeguard Policy statement (SPS, 2009).
- This “Environment Monitoring Report” for the period January to June, 2017 describes the status of implementation of the mitigation measures and monitoring recommended in the IEE for these sub – projects within the stated period.

## II. IMPLEMENTATION PROGRESS

### A. Major works and progress

10. Till date (30<sup>th</sup> June, 2017) contractors have done good progress in all subprojects, some projects considerable progress has been reported. Monitoring and reporting on Environmental safeguard has been carried out for all the subprojects.

11. List of sub projects and their status is given hereunder:

**Table 1: Status of Sub Project status under UEAP- WSS (up to 30<sup>th</sup> June, 2017)**

| Town        | Package Code   | Sub Project  | Physical Progress   |
|-------------|--|--|---|
| Kapkot      | UK/UEAP-WSS-KU/01<br>Lot 1: Kapkot<br>Lot 2 : Bageshwar<br>Lot 3: Dharchula  | 1) Construction of Infiltration well 1.40mld -1 Nos<br>2) Laying of rising mains.7641 m<br>3) Electrical and Instrumentation works- 4 nos VT Pumps over I Well   | 1) Construction of Infiltration well – Completed.<br>2) Laying welding & hydraulic testing of rising mains 7641m complete.<br>3) HT panel & 4nos VT pumps under trial run.  |
| Bageshwar   |  | 1) Construction of infiltration well1.34 mld -1 Nos<br>2) Pump house over Infiltration well-1 Nos<br>3) Alum Godown – I Nos<br>4) Rising mains-1074m<br>5) Pumps and related electrical and<br>6) Mechanical works- Pumps 6 Nos<br>7) Electrical and Instrumentation works | 1) Work completed, trial run started on 01/11/2016 for Infiltration wall.<br>2) Rising mains-1176m Laid and 1176m hydraulic testing done.<br>3) Painting work is in progress at Alum Godown.<br>4) Pumps 4 nos – 4nos Pumps commissioned at Kathyathbada.<br>5) Electric panel installation and electric fitting completed at Infiltration wall.  |
| Dharchula   |  | 1) Installation of Uttaranchal Koops<br>2) Construction of Horizontal flow Roughing filter 1.732mld-1 Nos<br>3) Construction of 25KL, 50KL and 300 KL Water tank<br>4) Gravity pipeline -8076m<br>5) RCC Intake Chamber  | 1) Uttaranchal Koop installation completed & supply under trial.<br>2) HFRF work completed & Supply started in old pipe line. New pipe line damage by PMGSY road construction.<br>3) Structural works for 25KL, 50KL tank and 300 KL Water tank Completed. Chlorinator installed.<br>4) Laying, jointing & hydraulic testing completed of Gravity pipeline -7958m.<br>5) RCC Intake Chamber- Intake chamber & Uttaranchal Koop damage by PMGSY. |
| Rudraprayag | UK/UEAP-WSS-GW/01<br>Lot 1: Rudraprayag<br>Lot 2 : Karnprayag<br>Lot 3: Gauchar<br>Lot 4: Uttarkashi<br>Lot 5: Devprayag | 1) Installation of Uttaranchal Koop<br>2) Pipe Line -5880m<br>3) Office Building – 1 Nos<br>4) Stream Crossing – 1 Nos   | 1) 3nos Uttaranchal Koop Installation completed. Supply under trial.<br>2) Laying, jointing & hydraulic testing completed- 5880m.<br>3) Office building- Main office building, EE room, AE room, JE room & Store room completed<br>4) Stream Crossing- completed.   |
| Karnprayag  |  | 1) Office Building<br>2) Pipe line work -14000m<br>3) 500 KL,150KL and 35 KL Water Tank and 100KL Sump<br>4) Infiltration Well 2.46 mld-1 Nos<br>5) Electromechanical works  | 1) Office Building –Completed.<br>2) Pipe line work -13575m Laid. 4021m hydro testing done.<br>3) Infiltration Well–Civil work completed. Boundary wall & finishing work is in progress.  |

| Town       | Package Code      | Sub Project  | Physical Progress  |
|------------|-------------------|--|--|
|            |                   |  | 4) Boundary wall is in progress at 500KL GLSR site.<br>5) 500 KL, 150KL, 35 KL GLSR completed.<br>6) 100KL SUMP and Pump house completed. Pump foundation work, Panel room & Boundary wall work in progress.<br>7) DG set & SCADA panel reached at site.   |
| Gauchar    |                   | 1) Office Building- 1 Nos<br>2) 100 KL Water Tank and 100 KI Sump<br>3) Pipe Line Work-11000m<br>4) Infiltration Well 2.53 mld- 1 Nos<br>5) Electro Mechanical Works   | 1) Office Building- Completed.<br>2) 100KL GLSR work completed.<br>3) 100KL SUMP and Pump house completed. Pump foundation work, Panel room & Boundary wall work in progress.<br>4) Laying, jointing & hydraulic testing completed of Gravity pipeline -11120m.<br>5) Infiltration Well–Civil work completed. Boundary wall & finishing work is in progress.<br>6) DG set & SCADA panel reached at site.   |
| Uttarkashi |                   | 1) Construction of Tube well 5.76mld– 2 Nos<br>2) Pipe Line -7680m<br>3) Electrical and Instrumentation works<br>4) Repairs in Water treatment plant<br>5) Construction of Pump house  | 1) Construction of Tube well – 2 Nos completed<br>2) Laying, jointing & hydraulic testing completed of Gravity pipeline -5967m.<br>3) Electrical and Instrumentation works – Transformer & Control panel installed.<br>4) Water Treatment Plant – Filter media & PVC tube settler work completed at Bhattwadi WTP. Filter media, PVC tube settler work and painting work is in progress at Gufiyara WTP.<br>5) Construction of Pump house - Completed.<br>6) Electrical connection works completed for pump house. |
| Devprayag  |                   | 1) Installation of Uttaranchal Koop 3nos.<br>2) Pipe Line Works- 31000m.<br>3) 50 KL Water Tank.<br>4) Office Building- 1 Nos  | 1) Installation of 3 nos Uttaranchal Koop completed.<br>2) Pipe Line Work-30900m Laid and 10689m hydraulic testing done.<br>3) 50KI GLSR completed. Valve fixing & chamber work completed.<br>4) Office building- Plaster & Electric fitting work in progress.   |
| Srinagar   | UK/UEAP-WSS-GW/02 | 1) Construction of pump house<br>2) Installation of raw water and clear water. Pumping machinery.-28 No Pumps<br>3) Pipeline Works-31837m<br>4) Rehabilitation of water treatment Plants.<br>5) Electrical and Instrumentation works.<br>6) Office Building- 1 Nos<br>7) 1000KL, 500KL Water Tank and 500KL Sump.<br>8) SCADA Room | 1) Pump house painting work is in progress.<br>2) Installation of raw water and clear water pumping machinery- 24 nos Pumps reached at site. 22 pumps installed at Srinagar. 3.75mld CWPH 6 commissioned. 6 mld CWPH-8 pumps installed & flooring work in progress. RWPH-5 pumps installed and 4 pumps commissioned, 1 commissioned at Pauri.  |

| Town     | Package Code                                | Sub Project  | Physical Progress   |
|----------|---|--|---|
|          |   |  | 3) Pipeline Works-32981m laid and 19598m hydraulic testing done.<br>4) Electrical and Instrumentation works- DG set & electric panel reached at site.<br>5) Office Building-Completed.<br>6) 1000KL Tank-Completed.<br>7) 200 KL GLSR –Finishing work is in progress.<br>8) 500KL SUMP- Hydro testing work successfully done.<br>SCADA room- Completed. |
| Srinagar | UK/UEAP-WSS-GW/02-01                        | Construction of Tube Wells 8.64 mld– 6 Nos   | 1) All 06 nos tubewells monitoring done.<br>2) All 06 nos tubewells development completed<br>3) Boundary wall work is in progress.  |
| Srinagar | UK/UEAP-UJS/WSS-GW/02-02 Srinagar (AMR)     | Replacement of connection pipes for proper piping arrangement from water mains to consumer household upto the AMR meter and installation of AMR meter for proper consumer connections including remote reading of volumetric water consumptions at Srinagar. | 874 meters installed out of 6245  |
| Kapkot   | UK/UEAP-UJS/WSS-KU/01-01 (Tank & pipe line) | Additional works of GLSRs 2 nos and distribution network at Kapkot   | 1) Pipe line laying - 400m completed<br><br>2) 200KL GLSR – Excavation is in progress.  |

12. Table 2 show the status of the sub project implementation, starting date, schedule date of completion and physical progress.

**Table 2: Status of Sub-project Implementation under UEAP- WSS (up to 30<sup>th</sup> June, 2017)**

| Location  | Component, name of the sub project (Code No.)   | Starting date of implementation | Projected months of completion (as per work order) | Schedule date of completion & extended date of completion | Physical progress (%) as on 30.06.17 |
|-----------|---|---------------------------------|--|---|--------------------------------------|
| Kapkot    | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula (UK/UEAP-WSS-KU/01) | 01.11.2014                      | 18 months  | 31.05.2016<br>18.12.2016<br>31.01.2017                    | 100                                  |
| Bageshwar |   | 01.12.2014                      | 18 months  | 31.05.2016<br>18.12.2016<br>31.03.2017                    | 100                                  |
| Dharchula |   | 01.12.2014                      | 18 months  | 31.05.2016<br>30.11.2016<br>31.03.2017                    | 100                                  |



|                    |   |            |           |  |     |
|--------------------|---|------------|-----------|--|-----|
| <b>Rudraprayag</b> | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Rudraprayag, Karnprayag, Gauchar, Uttarkashi & Devprayag ( <b>UK/UEAP-WSS-GW/01</b> )   | 19.01.2015 | 18 months | 18.07.2016<br>30.11.2016<br>31.01.2017         | 100 |
| <b>Karnprayag</b>  |   | 19.01.2015 | 18 months | 18.07.2016<br>18.12.2016<br>31.03.2017         | 100 |
| <b>Gauchar</b>     |   | 19.01.2015 | 18 months | 18.07.2016<br>18.12.2016<br>31.03.2017         | 100 |
| <b>Uttarkashi</b>  |   | 19.01.2015 | 18 months | 18.07.2016<br>30.11.2016<br>31.03.2017         | 90  |
| <b>Devprayag</b>   |   | 09.03.2015 | 18 months | 08.09.2016<br>18.12.2016<br>31.03.2017         | 100 |
| <b>Srinagar</b>    | Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump and Electrical and Instrumentation works at Srinagar ( <b>UK/UEAP-WSS-GW/02</b> )  | 19.01.2015 | 18 months | 18.07.2016<br><br>18.12.2016<br><br>31.03.2017 | 100 |
| <b>Srinagar</b>    | Design and Construction of Tube Wells by drilling of bore hole using Direct Rotary Method/RR/Dual Rotary/Percussion method , lowering of well assembly, development of bore well, performance (yield) test, design, supply and installation of Mechanical equipment to suit yield test results (single stage pumping), testing, commissioning, laying of required lengths of pipe line up to termination / destination points, as per site requirements, along with related mechanical as required, including Civil Works i.e Construction of Pump houses, chamber, Construction of Boundary Walls, operation and maintenance of tube wells for a period of 1 year and allied works in Srinagar<br><b>UK/UEAP-WSS-GW/02 -01</b> | 19.04.2016 | 06 months | 18.10.2016<br><br>31.03.2017                   | 100 |
| <b>Srinagar</b>    | Replacement of connection pipes for proper piping arrangement from water mains to consumer household upto the AMR meter and installation of AMR meter for proper consumer connections including remote reading of volumetric water consumptions at Srinagar.<br><b>UK/UEAP-WSS/UJS-GW/02-02 Srinagar (AMR)</b>  | 26.04.2017 | 6 months  | 25.10.17                                       | 29  |
| <b>Kapkot</b>      | Additional works of GLSRs 2 nos and distribution network at Kapkot<br><b>UK/UEAP-WSS/UJS-KU/01-01 (Tank &amp; pipe line)</b>  | 26.05.2017 | 5 months  | 20.10.2017                                     | 35  |

## B. Compliance of Safeguard Loan Covenants

13. The status of compliance of ADB's major Loan Covenants related to Safeguard issues is shown below:

| Serial no. as per loan agreement  | Program Specific Covenants   | Status / Issues   |
|---|--|---|
| <b>Environment</b>  |  |   |
| 9   | The Borrower shall ensure or cause the EA and IAs to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project facilities comply with (i) all applicable laws and regulations of the Borrower and State relating to environment, health, and safety; (ii) the Environmental Safeguards of ADB; and (iii) all measures and requirements set forth in the EARF, EIA/ IEE as applicable, and the EMMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.  | <b>Under compliance</b><br>Documents have been prepared by complying all relevant State and National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF).<br>Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. Due to change of scope during implementation IEEs have been revised and submitted to ADB.<br>All measures and requirements as prescribed in IEE and EMP has been considered during implementation.<br>Corrective or preventive action plans which reflected in Environment Monitoring Report has been taken care by project implementation authority  |
| <b>Human and Financial Resources to Implement Safeguards Requirements</b>       |  |   |
| 12  | The Borrower shall ensure or cause the EA and relevant IA to ensure<br>(a) that all necessary budgetary and human resources to fully implement the EMMP as required, are made available; and<br>(b) designates at least one official each to supervise implementation of the EMMP  | <b>Under compliance</b><br>Budgetary provisions have been included in EMPs One officer designated to supervise implementation of the EMMP   |
| <b>Safeguards – Related Provisions in Bidding Documents and Works Contracts</b> |  |   |
| 13  | Borrower shall ensure or cause the EA and each IA to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:<br>(a) comply with the measures and requirements relevant to the contractor set forth in the EIA/IEE, the EMMP, the RPs and any IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;<br>(b) make available a budget for all such environmental and social measures;<br>(c) provide the relevant IA with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks if any, or impacts that arise during construction, implementation or operation of the project that were not considered in the | <b>Under compliance</b><br>(a) Approved IEEs, EMPs and RPs are attached in Bidding documents.<br>In case of any change of scope, revised IEEs, EMPs have been prepared and corrective measures disclosed to contractor and same reflected in the "Environment Monitoring Report"<br>(b) All IEEs indicate budgetary provisions for implementation of EMPs<br>(c) With the development of sub project and implementation, in case of additional impacts/risks due to change in scope/area, that will be reflected in the revised IEEs, EMPs and Environment Monitoring Report and accordingly project Executing Agency will inform the Construction Agency for taking relevant corrective measures.<br>(d) Haul roads marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.<br>(e) Pathways, land which are likely to be affected |

| Serial no. as per loan agreement           | Program Specific Covenants  | Status / Issues  |
|--|---|--|
|  | EIA/IEE, the EMMP, and the RP or the IPP if any;<br>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and<br>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.   | for a short period during implementation of the sub project have been restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report   |
| <b>Safeguards Monitoring and Reporting</b> |   |  |
| 14   | The Borrower shall ensure or cause the EA and each IA to ensure the following:<br>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;<br>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE/EIA, the EMMP, the RPs or any IPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and<br>(c) report any breach of compliance with the measures and requirements set forth in the EMMP, the RPs or any IPP promptly after becoming aware of the breach. | <b>Under compliance</b><br>(a) This is 6 <sup>th</sup> Semi-annual Environment Monitoring Report, prepared for the period January to June 2017.<br>(b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in revised IEEs, EMPs and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report.<br>Accordingly revised IEEs were submitted to ADB and approved by ADB<br>(c) In case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB and suitable corrective action plan will be planned. |
| <b>Prohibited List of Investments</b>      |   |  |
| 15   | The Borrower shall ensure or cause the EA and each IA to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.   | <b>Complied</b><br>For selection of sub projects there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5.   |
| <b>Labor Standards</b>                     |   |  |
| 16   | The EA through each IA shall ensure that civil works contracts under the Project follow all applicable labor laws of the Borrower and State and that these further include provisions to the effect that contractors; (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts will also include clauses for termination in case of any  | <b>Complied in document and to be complied during implementation</b><br>Provision are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours.<br>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.<br>All activities including awareness program will be reflected in "Monitoring Report".   |

| Serial no.<br>as per<br>loan<br>agreement | Program Specific Covenants                          | Status / Issues |
|---|---|-----------------|
|   | breach of the stated provisions by the contractors. |                 |

### C. Environmental and Social Organization and Management along with Implementation Arrangements

14. The institutional arrangements specify the arrangements for the implementation of environmental provisions of the proposed sub-projects. The Executing Agency (EA), State Disaster Management Authority (SDMA) will work closely with the Implementing Agency (IA) Uttarakhand Jal Sansthan for effective implementation of environmental safeguards related requirements of the sub-projects. The institutional arrangements and responsibilities are detailed below.
15. The sub-projects will be implemented and monitored by Uttarakhand Jal Sansthan as Implementing agency and implemented through its Field PIU's supported by DSC (also working as Engineer) and overall management support shall be provided by PMU, UEAP.
16. The Safeguard Staff of UEAP SDMA (EA) in PMU & IA will monitor the implementation of environmental covenants with assistance of Engineer (DSC).
17. UEAP SDMA (EA) shall be responsible for ensuring compliance to environmental requirements of the ADB as well as central/state governments and reporting the same to ADB. A relevant portion of EMMP will be a part of contract with the civil works contractors engaged for execution of the works. The primary responsibility of implementation of EMMP is of the IA during pre-construction and operation and maintenance phases; and of the civil works contractor during the construction phase as defined in the EMMP. The responsibility of supervision of EMMP implementation is of the DSC; and it would guide the IA and the civil works contractors in this regard. DSC with IA and EA, UEAP will act as monitoring agency as delegated in EMMP. All applicable statutory environmental clearances, consents, and/or permits (at national, state and local levels) as required for the implementation of the subproject would be obtained by the IA or by the civil works contractor in line with India's national/state/local laws and regulations, and in accordance with ADB's SPS 2009 requirements. Redressal of grievances shall be the responsibility of UEAP SDMA (EA). Apart from the mechanism for the grievances receiving and redressal at the level of EA, the provision shall be kept in the EMP of the subprojects wherein the contractor will depute one Environmental Safeguard Officer who shall be responsible for implementation of EMP, reporting and grievance redressal on day-to-day basis. The grievances/complaints received at the level of contractor shall be recorded on the Complaints Register and the same shall be forwarded to the DSC (Engineer of the Contract) within 48 hours along with the details of action taken to redress the grievance. The Team Leader of DSC shall immediately try to resolve the issues and forward the details to the FPIU / IA. If the action taken by Contractor and DSC is found

to be inadequate, then necessary instructions shall be issued by the FPIU/IA for implementation of rectification measures.

### III. ENVIRONMENTAL PROCEDURE REVIEW

#### A. Compliance with Environmental Regulations

18. Three sub projects are considered under UEAP – water supply system. As per state and national rules clearance and consent are required for few projects. Clearance status for subprojects is given in **Table 3** below.
19. Environmental compliance status for the running project is enclosed in **Annexure 1**.

**Table 3: Present Status of Environment, Forest & other clearances (up to June, 2017)**

| Work (Package No.)  | Applicable Legislation/ Type of clearance   | Subject / Issue   | Clearance given by and date  | Remarks/ Action taken  |
|---|---|---|--|--|
| Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula<br><b>(UK/UEAP-WSS-KU/01)</b><br><b>Lot 2: Bageshwar</b>  | Water (Prevention and Control of Pollution) Act. 1974<br><br>Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP from Uttarakhand Environmental Protection and Pollution Control Board (UEPPCB) at Dehradun.   | Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP  | Not required   | Existing Water Treatment Plant does not have Consent to Operate under Water (Prevention and Control of Pollution) Act, 1974 and amendments.<br><br>Ref. to discussion with Pollution Control Board it emerges that there is no fixed requirement for consent to establish/ Consent to Operate for rehabilitation of WTP.   |
| Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Rudraprayag, Karnprayag, Gauchar, Uttarkashi & Devprayag<br><b>(UK/UEAP-WSS-GW/01)</b><br><b>Lot 4: Uttarkashi</b><br><b>Lot 5: Devprayag</b> | Water (Prevention and Control of Pollution) Act. 1974<br><br>Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP from Uttarakhand Environmental Protection and Pollution Control Board (UEPPCB) at Dehradun.<br><br>As per "The Forest (Conservation) Act, 1980" online application submitted to DFO for acquisition of forest land tree felling | Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP<br><br>Forest land acquisition – 0.36 ha for construction of office building at Devaprayag | Not required<br><br>Clearance obtained on 30.12.2015 by Government of India Ministry of Environment, forest and climate change, Regional office Dehradun | Existing Water Treatment Plant does not have Consent to Operate under Water (Prevention and Control of Pollution) Act, 1974 and amendments.<br><br>Ref. to discussion with Pollution Control Board it emerges that there is no fixed requirement for consent to establish/ consent to operate for rehabilitation of WTP.<br><br>0.36 ha of forest land for non forest purpose handed over to UJS on 18.02.2016 on lease for 30 years and maintenance of 190 trees. |

| Work (Package No.)  | Applicable Legislation/ Type of clearance  | Subject / Issue  | Clearance given by and date | Remarks/ Action taken  |
|---|--|--|-----------------------------|--|
| Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump and Electrical and Instrumentation works at Srinagar (UK/UEAP-WSS-GW/02) | Water (Prevention and Control of Pollution) Act. 1974<br><br>Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP from Uttarakhand Environmental Protection and Pollution Control Board (UEPPCB) at Dehradun.  | Consent to Establish (CTE)/ Consent to Operate (CTO) for rehabilitation of WTP | Not required                | Existing Water Treatment Plant does not have Consent to Operate under Water (Prevention and Control of Pollution) Act, 1974 and amendments.<br><br>Ref. to discussion with Pollution Control Board it emerges that there is no fixed requirement for consent to establish/ Consent to Operate for rehabilitation of WTP. |
| For all packages under UEAP- WSS<br>UK/UEAP-WSS-KU/01<br>UK/UEAP-WSS-GW/01<br>UK/UEAP-WSS-GW/02<br>Srinagar (UK/UEAP-WSS-GW/02-01)<br>UK/UEAP-WSS/UJS-GW/02-02 Srinagar (AMR)<br>UK/UEAP-WSS/UJS-KU/01-01 (Tank & pipe line)  | Water (Prevention and Control of Pollution) Act. 1974<br><br>The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987<br><br>Noise Pollution (Regulation and Control) Rules, 2002 amended up to 2010<br><br>Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO) | -  | -                           | During implementation of project compliances against Air Act, Noise Rules and Water Act have been complied.<br><br>Silent generators will be installed.  |

#### IV. IMPLEMENTATION STATUS OF ENVIRONMENT MEASURES

20. Works in 9 sub projects are completed whereas works in 3 sub projects are under progress as on 30<sup>th</sup> June, 2017. Application of EMP is being implemented as per IEE report. The compliance monitoring format for application of mitigation measures against impacts on air, water, soil environment, and social and safety aspects is enclosed in **Annexure 2**. Format for summary compliance status of EMP application and actions/ corrective measures presented in **Table 4** below.

**Table 4: Summary Compliance status of Environment Management and Monitoring Plan (30.06.2017)**

| Location         | Name of Sub Project  | EMP being Implemented<br>(Yes / No) | Overall Status of EMP Implementation<br>(Excellent/<br>Satisfactory/<br>Partially Satisfactory/<br>Below Satisfaction/<br>Poor/ Very Poor) | Actions Proposed or continued/<br>Additional Corrective Measures Required   |
|------------------|--|-------------------------------------|--|---|
| <b>Kapkot</b>    | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula ( <b>UK/UEAP-WSS-KU/01 Lot 1</b> ) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Bageshwar</b> | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula ( <b>UK/UEAP-WSS-KU/01 Lot 2</b> ) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Dharchula</b> | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula ( <b>UK/UEAP-WSS-KU/01 Lot 3</b> ) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation .<br>Environmental monitoring tests have been done during construction phase                                   |



| Location           | Name of Sub Project  | EMP being Implemented<br>(Yes / No) | Overall Status of EMP Implementation<br>(Excellent/<br>Satisfactory/<br>Partially Satisfactory/<br>Below Satisfaction/<br>Poor/ Very Poor) | Actions Proposed or continued/<br>Additional Corrective Measures Required   |
|--------------------|--|-------------------------------------|--|---|
|                    |  |                                     |  | ✓ Arrangement of First aid box  |
| <b>Rudraprayag</b> | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. (UK/UEAP-WSS-GW/01-Lot 1) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Karnprayag</b>  | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. (UK/UEAP-WSS-GW/01-Lot 2) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Gauchar</b>     | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. (UK/UEAP-WSS-GW/01-Lot 3) | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Uttarkashi</b>  | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. (UK/UEAP-WSS-GW/01-       | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental   |



| Location         | Name of Sub Project  | EMP being Implemented<br>(Yes / No) | Overall Status of EMP Implementation<br>(Excellent/<br>Satisfactory/<br>Partially Satisfactory/<br>Below Satisfaction/<br>Poor/ Very Poor) | Actions Proposed or continued/<br>Additional Corrective Measures Required   |
|------------------|--|-------------------------------------|--|---|
|                  | <b>Lot 4)</b>  |                                     |  | monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box   |
| <b>Devprayag</b> | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.<br><b>(UK/UEAP-WSS-GW/01-Lot 5)</b>   | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Srinagar</b>  | Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump and Electrical and Instrumentation works<br><b>(UK/UEAP-WSS-GW/02)</b>                              | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Environmental monitoring tests have been done during construction phase<br>✓ Arrangement of First aid box |
| <b>Srinagar</b>  | Design and Construction of Tube Wells by drilling of bore hole using Direct Rotary Method/RR/Dual Rotary/Percussion method , lowering of well assembly, development of bore well, performance (yield) test, design, supply and installation of Mechanical equipment to suit yield test results (single stage pumping), testing, commissioning, laying of required lengths of pipe line up to termination / | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Arrangement of First aid box  |

| Location        | Name of Sub Project   | EMP being Implemented<br>(Yes / No) | Overall Status of EMP Implementation<br>(Excellent/<br>Satisfactory/<br>Partially Satisfactory/<br>Below Satisfaction/<br>Poor/ Very Poor) | Actions Proposed or continued/<br>Additional Corrective Measures Required  |
|-----------------|---|-------------------------------------|--|--|
|                 | destination points, as per site requirements, along with related mechanical as required, including Civil Works i.e Construction of Pump houses, chamber, Construction of Boundary Walls, operation and maintenance of tube wells for a period of 1 year and allied works in Srinagar<br><b>(UK/UEAP-WSS-GW/02-01)</b> |                                     |  |  |
| <b>Srinagar</b> | Replacement of connection pipes for proper piping arrangement from water mains to consumer household upto the AMR meter and installation of AMR meter for proper consumer connections including remote reading of volumetric water consumptions at Srinagar.<br><b>UK/UEAP-WSS/UJS-GW/02-02 Srinagar (AMR)</b>        | Yes                                 | Satisfactory   | Labour licence applied & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Arrangement of First aid box |
| <b>Kapkot</b>   | Additional works of GLSRs 2 nos and distribution network at Kapkot<br><b>UK/UEAP-WSS/UJS-KU/01-01 (Tank &amp; pipe line)</b>  | Yes                                 | Satisfactory   | Labour licence & workmen compensation obtained<br>✓ PUC certificate submitted<br>✓ Complete use of PPE<br>✓ Labour in rented accommodation<br>✓ Arrangement of First aid box         |

## V. ENVIRONMENTAL MONITORING AND EVALUATION

21. For effective monitoring, selected environmental parameters have been identified as indicators which will be qualitatively and quantitatively measured and compared over a period of time in order to assess/ensure the compliance of EMP. The environmental performance indicators are physical, biological and social characteristics identified as most important in affecting the environment at critical locations all along the subproject locations. The parameters identified as performance indicators are:
- Air, noise, water and soil quality
  - Compliance to EMP
  - Compliance to local/state/national environmental regulations
22. During implementation process, performance monitoring fact sheet is being prepared against each possible environmental impact and attached with the monitoring report. **Annexure 3** shows the Performance Fact Sheet for implementation of EMP.
23. Base line and construction phase air, noise, water quality monitoring have been carried out at all working areas of 9 towns, as per scope of work. During the period of reporting, the following environmental monitoring tests were conducted
- May, 2017, Baseline monitoring (Air, Water, Noise and Soil) in Kapkot II
- May, 2017, Post – construction monitoring (Air, Water, Noise and Soil) in Rudraprayag
- ✓ In both the cases during post- construction and before construction PM<sub>2.5</sub> and PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub> concentrations are within the standard.
  - ✓ Concentration of CO is below the detectable limit
  - ✓ Water quality parameters like pH, total hardness, total dissolved solid, chloride, coliform bacteria all are within the standard
  - ✓ Fluoride is not detected in water sample and also iron is below the limit.
  - ✓ Also residual free chlorine is not detected in water sample
  - ✓ There is no significant change in water quality status during construction
24. Construction stage monitoring has been conducted in all 9 towns as per Environment Management and Monitoring Plan. Environmental monitoring of operation and maintenance period has been conducted in May 2017, Kapkot and Rudraprayag. Base line monitoring for Kapkot II (additional works) has been conducted in May 2017.

## **VI. MAJOR PROJECT ISSUES AND PROBLEMS ENVIRONMENTAL CONTEXT**

25. Field activity of 9 sub-project is over, whereas of Uttarkashi is almost over. Up to 30<sup>th</sup> June, 2017 contractors have done good progress in 10 subprojects and in 3 subprojects considerable progress has been reported. Till date, no major issues and problems have been encountered at the sub project locations.

## **VII. CONSULTATIONS AND RECOMMENDATIONS ENVIRONMENTAL CONTEXT**

26. For protection of local environment during construction phase, application of mitigation measures will be done as per specified EMP. Public consultation during construction/ implementation phase particularly at sensitive areas was planned as per the requirement. To create awareness among workers and supervisors on Environment Health and safety issues during construction contractor and DSC arranged onsite training programmes for the contractor's workers along the construction supervisors.

## **VIII. GRIEVANCE REDRESSAL**

27. A joint social and environmental redress mechanism has been implemented under the project. Grievances and suggestions related to inappropriate implementation of the project and components of EMP come-up from local and affected people. The expected range of grievances to be handled through this mechanism encompasses everything and is not limited to the following: i) nuisance from noise, dust, and temporary blocking of access; ii) contamination of receiving water from runoff; iii) emissions from increase vehicular traffic and stationary sources like construction machineries; iv) conflict between local residents and migrant workers; v) ownership of vegetation for clearing; and vi) damage compensation. These issues are addressed through acknowledgement, evaluation and corrective action and response approach. Grievances from public or stakeholders concerning the project and EMP implementation are received by the concerned Executive Engineer of UEAP division. The Executive Engineer shall refer the application to Design and Construction Supervision Consultants (DSC) who then assess the grievances/suggestions and if they are found to be genuine and acceptable, which are resolved at division level itself within 15 to 30 days from the date of receipt. In case, the issue is unable to be resolved, the matter is forwarded to the PMU, UEAP (Head quarter). This mechanism is non-judicial in nature and does not preclude the affected people courting their grievances to the courts. The corrective action is started as per the action plan indicated to the stakeholder. The action taken and the outcome shall form a part of quarterly report to ADB.
28. Central GR committee has been set up under UEAP at UJS.
29. Sample Grievance Registration Format is enclosed as **Annexure 6 & 7**.

## IX. ISSUES AND ACTION PLAN

30. Urbanization has increased at a rapid pace in India over the recent years, much faster than the increase in urban infrastructure facilities to support them. Also, pressure of population has been more on larger towns/cities putting enormous pressure on the resources of municipalities so much so that most are unable to keep up with the provision of even basic services and infrastructure resulting in irregular availability of water, sanitation and public amenities. In extreme cases, this has aggravated risks to public health and safety. Nine towns as selected under the Emergency Program particularly for water supply sector needs immediate attention and urgent implementation process.
31. Experience from ADB-funded urban projects show complex social, economic, legal, institutional, and management issues in urban development – largely derived from realities of urban life in developing countries like India. Urban projects typically consist of a variety of infrastructure such as roads, water, sewerage, solid waste, and slum improvement/upgrading activities. It is important to mention in this context that the final detailed engineering design in each sub project of UEAP have been prepared keeping in mind to avoid or minimize social and environmental impact as far as possible.
32. Contractors have done good progress in all subprojects and in some areas considerable progress have been reported. Provisions in the EMP are implemented in all the subproject towns (**Refer Annexure -15**). Till date, no major issues and problems have been encountered with, at the sub project locations. Suggestion & action plan is shown in **Table 5**.

**Table 5: Suggestion & Action plan considered for satisfactory Environmental Compliances**

| Sr. No. | Issues  | Suggestion and recommendation   | Action to be taken by                      | Time Frame                                     |
|---------|---|---|--|--|
| 1       | Application of EMP                                      | Continue on regular basis   | Contractor in association with PIU and DSC | Continue process. Submission of monthly format |
| 2       | Health and Safety – complete use of PPE                 | Complete use of PPE   | Contractor                                 | Continue process.                              |
| 3       | Pollution Under control certificate                     | Collection of remaining PUC for vehicle and equipment                                 | Contractor                                 | Continue process.                              |
| 4       | Arrangement of labour camp/ rented house for contractor | Arrangement as per requirement  | Contractor                                 | Continue process                               |
| 5       | Restoration of the construction area                    | At earliest as possible   | Contractor                                 | Continue process.                              |
| 6       | Social relationship and public safety                   | Arrangement of safety tape and public consultation                                    | Contractor                                 | Continue process                               |
| 7       | Training to workers                                     | Regular tool box training for laborers. Safeguard orientation training for contractor | Contractor, PIU, DSC                       | Continue process                               |
| 8       | Renewal of Labour License                               | Continue on regular basis   | Contractor, PIU, DSC                       | Continue process                               |

**ANNEXURE 1: ENVIRONMENT FOREST AND OTHER COMPLIANCES (as on 30<sup>th</sup> June, 2017)**

| Package                                    | EIA Clearance | Wet Land | Forest Clearance | Wild Life Act applicability | Tree Cutting Permission | Permission from State/ National Archaeological dept. | Consent for establishment of crusher from quarry material supplier | MSW Rules | CTE/ CTO | Authorization | Ground Water Permission | PUC       | Date of Environmental Monitoring  |
|--|---------------|----------|------------------|-----------------------------|-------------------------|--|--|-----------|----------|---------------|-------------------------|-----------|---|
| (UK/UEAP-WSS-KU/01 Lot 1) Kapkot           | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Jan, 2015<br><br>During construction<br>June, 2015, Nov.,<br>2015 and Jan., 2016     |
| (UK/UEAP-WSS-KU/01 Lot 2) Bageshwar        | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Jan, 2015<br><br>During construction<br>Nov., 2015, Jan.,<br>2016 and Sept., 2016    |
| Supply (UK/UEAP-WSS-KU/01 Lot 3) Dharchula | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br><br>Jan, 2015<br><br>During construction<br>June, 2015, Nov.,<br>2015 and Jan., 2016 |
| (UK/UEAP-WSS-GW/01-Lot 2) Rudraprayag      | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Feb., 2015<br>During construction<br>Oct., 2015, April,<br>2016 and June, 2016       |
| (UK/UEAP-WSS-GW/01-Lot 2) Karnprayag       | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Feb., 2015<br>During construction<br>Oct., 2015, April,<br>2016 and June, 2016       |
| (UK/UEAP-WSS-GW/01-                        | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            |                         | Submitted | Base line   |

| Package                                      | EIA Clearance | Wet Land | Forest Clearance                              | Wild Life Act applicability | Tree Cutting Permission                       | Permission from State/ National Archaeological dept. | Consent for establishment of crusher from quarry material supplier | MSW Rules | CTE/ CTO | Authorization | Ground Water Permission | PUC       | Date of Environmental Monitoring   |
|--|---------------|----------|---|-----------------------------|---|--|--|-----------|----------|---------------|-------------------------|-----------|--|
| Lot 3) Gauchar                               |               |          |   |                             |   |  |  |           |          |               | NR                      |           | Jan., 2015<br>During construction<br>Oct., 2015, April, 2016 and June, 2016              |
| (UK/UEAP-WSS-GW/01- Lot 4) Uttarkashi        | NR            | NR       | NR  | NR                          | NR  | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Feb., 2015<br>During construction<br>Oct., 2015, April, 2016 and June, 2016 |
| (UK/UEAP-WSS-GW/01- Lot 5) Devprayag         | NR            | NR       | Yes – forest clearance received on 18.02.2016 | NR                          | Yes – forest clearance received on 18.02.2016 | NR   | NR now   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>April, 2015<br>During construction<br>Dec., 2015, May, 2016 and Dec., 2016  |
| (UK/UEAP-WSS-GW/02) Srinagar                 | NR            | NR       | NR  | NR                          | NR  | NR   | NR now   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Feb., 2015<br>During construction<br>Oct., 2015, April, 2016 and June, 2016 |
| (UK/UEAP-WSS-GW/02-01) Srinagar (tube wells) | NR            | NR       | NR  | NR                          | NR  | NR   | NR now   | NA        | NR       | NA            | NR                      | Submitted | Base line<br>Feb., 2015<br>During construction<br>Oct., 2015, April, 2016 and June, 2016 |
| UK/UEAP-WSS/UJS-GW/02-02 Srinagar (AMR)      | NR            | NR       | NR  | NR                          | NR  | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Base line done in June, 2016   |



| Package  | EIA Clearance | Wet Land | Forest Clearance | Wild Life Act applicability | Tree Cutting Permission | Permission from State/ National Archaeological dept. | Consent for establishment of crusher from quarry material supplier | MSW Rules | CTE/ CTO | Authorization | Ground Water Permission | PUC       | Date of Environmental Monitoring |
|--|---------------|----------|------------------|-----------------------------|-------------------------|--|--|-----------|----------|---------------|-------------------------|-----------|----------------------------------|
| UK/UEAP-WSS/UJS-KU/01-01 Kapkot (Tank & pipe line) | NR            | NR       | NR               | NR                          | NR                      | NR   | NR   | NA        | NR       | NA            | NR                      | Submitted | Baseline done in May, 2017       |

**ANNEXURE – 2: COMPLIANCE OF APPLICATION OF EMMP**

| Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula & Kapkot II (additional works) |  |   |  |                   |                            |   |   |  |
|---|--|---|--|-------------------|----------------------------|---|---|--|
| Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01   |  |   |  |                   |                            |   |   |  |
| Sr. No.   | Field /Issue   | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method                                   | Responsible for Monitoring  | Compliance Status/ Explanation   |
| <b>Site Establishment and Preliminary Activities phase</b>  |  |   |  |                   |                            |   |   |  |
| 1   | Legislation, Permits and Agreements                          | In all instances, EA, IA contractors and consultants must remain in compliance with relevant environmental legislation of India at the national, state and local levels.<br>Proof of compliance to statutory requirements must be forwarded by the facility owner and/or contractor to PMU/PIU in relation to hot mixing, stone crushers, diesel generators etc.<br>A copy of the EMP must be kept on site during the construction period | EMP implementation at site<br><br>NOC from competent authority | All project sites | DSC/PIU                    | Observation and document checking                   | Environment Specialist of DSC and Environment Officer of PMU                | NOC not required<br><br>EMP available with PIU and being implemented                                       |
| 2   | Education of site staff on general and Environmental Conduct | Ensure that all site personnel have a basic level of environmental awareness training<br>Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task<br>No operator shall be permitted to operate critical items of mechanical equipment without having been trained by the Contractor.  | Documentation – Training and awareness                         | All project sites | DSC/PIU and contractor     | Materials and records on awareness training program | Environment Specialist of DSC and Environment Officer of PMU and contractor | Complied Site Safety training arranged by Environment Specialist of DSC and contractor Environment Officer |
| 3   | Social Impacts   | Open liaison channels shall be established between the Site owner, operator, the contractors and interested and affected parties  | Sign boards<br><br>Project information                         | All project sites | DSC/PIU                    | Site visit and public consultations                 | Environment Specialist of DSC and Environment                               | Complied during construction   |

| <b>Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula &amp; Kapkot II (additional works)</b><br><b>Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01</b> |   |   |                                     |                       |                            |                                   |  |                                |
|--|---|---|-------------------------------------|-----------------------|----------------------------|-----------------------------------|--|--------------------------------|
| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored                | Location              | Responsible for Mitigation | Monitoring Method                 | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|  |   | such that any queries, complaints or suggestions pertaining to environmental management aspects can be dealt with quickly and by the appropriate person(s).<br>Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints. | dissemination                       |                       |                            |                                   | Officer of PMU   |                                |
| 4  | Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created and the architectural/archaeological character of the surroundings | Design will include provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability.  | Maintenance procedure as per design | All project locations | PMU/PIU                    | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Complied in design             |
| 5  | Layout of components and its location to avoid impacts on the aesthetics, sensitive environmental areas / attributes of the site  | The project components siting will avoid impacts on the aesthetics of the site, ensure minimal impacts and in compliance with statutory and regulatory requirements.  | Layout of components                | All project locations | PMU/PIU/ DSC               | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP     |

| <b>Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula &amp; Kapkot II (additional works)</b><br><b>Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01</b> |   |   |   |                       |                            |   |  |                                |
|--|---|---|---|-----------------------|----------------------------|---|--|--------------------------------|
| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location              | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation |
| 6  | Selection of materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the destinations | Selection of materials will be according to specification and from approved sources<br>Procurement of all material according to the material specification of the contract document and sourced from licensed and approved sources.   | <ul style="list-style-type: none"> <li>List of approved quarry sites and sources of materials</li> <li>Construction Contractor documentation</li> </ul> | Material source sites | Contractor, PIU, DSC       | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | PMU and DSC  | Complied                       |
| 7  | Socio cultural resources- Ground disturbance can uncover and damage archaeological and historical remains`                                    | There is not such location anticipated on the project site. In case of chance of finding such location, Consult Archaeological Survey of India (ASI) and/or concerned dept. of Uttarakhand Govt. as applicable to obtain an expert assessment of the archaeological potential of the site | Chance find protocol  | All excavation sites  | PIU, PMU                   | Site observation, document checking   | Environment Specialist of DSC and Environment Officer of PMU | NA                             |
| 8  | Integration of energy efficiency and energy conservation programs in design of sub-project components   | The detailed designs for the sub-project components shall ensure that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, rainwater harvesting etc.   | Detailed design   | All project locations | DSC, PMU                   | Document checking and site feasibility  | PMU  | Complied                       |
| 9  | Site clearance activities, including delineation of construction areas  | Any removal of vegetation or tree felling shall be done after taking statutory permissions if required. All works shall be carried out such that the damage or disruption of flora other than those identified for cutting is minimum.  | Necessary permission/ NOC   | All project locations | DSC, PIU                   | Document checking   | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Restoration done   |

| <b>Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula &amp; Kapkot II (additional works)</b><br><b>Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01</b> |  |  |                                    |                        |                            |                                    |  |  |
|--|--|--|------------------------------------|------------------------|----------------------------|------------------------------------|--|--|
| Sr. No.  | Field /Issue   | Mitigation Activities and Method   | Parameters monitored               | Location               | Responsible for Mitigation | Monitoring Method                  | Responsible for Monitoring                                   | Compliance Status/ Explanation                   |
|  |  | Only ground cover/shrubs that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the Environmental Expert of DSC<br>All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures as per the rehabilitation plan |                                    |                        |                            |                                    |  |  |
| 10   | Blockage of access in residential area, commercial area and sensitive location like school, college, hospitals and court | Contractor will identify such location in the preconstruction stage and prepare plan approved by DSC to minimize inconvenience to the people.  | Complain from sensitive receptors  | Construction location  | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied   |
| 11   | Slope protection near reservoir and intake well  | Retaining wall will constructed near reservoir and intake well   | Protection work                    | -                      | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP                       |
| <b>Construction phase</b>  |  |  |                                    |                        |                            |                                    |  |  |
| 12   | Construction Camps - Location, Selection, Design and Layout  | Siting of the construction camps, labour camp, and stockpiles shall be as per the guidelines of UEPPCB, ULB, village panchayat and any   | Selected location for construction | Construction camp site | Contractor                 | Site observation                   | Environment Specialist of DSC and Environment                | Workers are staying in rented buildings with all |

| <b>Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula &amp; Kapkot II (additional works)</b><br><b>Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01</b> |                             |   |  |                       |                            |   |  |  |
|--|-----------------------------|---|--|-----------------------|----------------------------|---|--|--|
| Sr. No.  | Field /Issue                | Mitigation Activities and Method  | Parameters monitored   | Location              | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation                     |
|  |                             | other applicable guideline to the local site. The contractor will assess the impact of the construction camp and should be acceptable to the PIU/ IA/PMU.<br>Construction camps will be located away from settlements and drainage from and through the camps will not endanger any domestic or public water supply. Construction camps including sanitation facilities must be adequately drained. Sewage management through septic tanks and solid waste management through local ULB system or other alternate measures. | work camps and stockpile area,   |                       |                            |   | Officer of PMU   | facilities   |
| 13   | Drinking water availability | Sufficient supply of potable water to be provided and maintained as per the standards, requirements, test methods and sampling procedure according to IS:10500.   | Availability of drinking water   | Working and camp site | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged in working sites and also in living place |
| 14   | Waste disposal              | Pre-identified disposal location (identified by Contractor in compliance to relevant regulation and approved by DSC) shall be part of Comprehensive Waste Disposal Plan Solid Waste Management Plan.<br>Contractor shall ensure that waste shall not be disposed off near the water course or agricultural land, Orchards and Natural   | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints from sensitive receptors</li> </ul> | Project Locations     | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Excess earth Utilized in back filling              |

| <b>Project: Water Supply - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar, Dharchula &amp; Kapkot II (additional works)</b><br><b>Package No: UK/UEAP-WSS-KU/01 Lot 1, Lot 2, Lot 3, UK/UEAP-WSS/UJS-KU/01-01</b> |                                       |  |   |                                    |                            |                   |  |                                |
|--|---------------------------------------|--|---|------------------------------------|----------------------------|-------------------|--|--------------------------------|
| Sr. No.  | Field /Issue                          | Mitigation Activities and Method   | Parameters monitored  | Location                           | Responsible for Mitigation | Monitoring Method | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|  |                                       | Habitats like Grasslands.  |   |                                    |                            |                   |  |                                |
| 15   | Stockpiling of construction materials | Stockpiling of construction materials and excavated earth or silt in case of construction of river bed filtration does not impact obstruct the drainage and Stockpiles will be covered to protect from dust and erosion.   | Selected location and facility  | Project Locations                  | Contractor                 | Site checking     | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 16   | Access to Site                        | Contractors shall ensure that all side drains and scour check walls on access and haul roads are functioning properly and are well maintained.<br>Contractors shall ensure that access roads are maintained in good condition  | <ul style="list-style-type: none"> <li>• Involvement of traffic dept.</li> <li>• Road closure planning</li> <li>• Maintenance of road</li> </ul>            | Specific project location          | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 17   | Quarry Operations                     | Contractor shall finalize the quarry for procurement of construction materials after assessment of the availability of sufficient quantity of materials, quality and other logistic arrangements.<br>The Contractor shall obtain materials from approved quarries only after consent of the Department of Mines and Geology and District Administration. | <ul style="list-style-type: none"> <li>• List of approved quarry sites and sources of materials</li> <li>• Construction Contractor documentation</li> </ul> | Quarries and material source areas | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 18   | Arrangement for Construction Water    | The contractor shall use ground/surface water as a source of water for the construction with the written consent from the concerned Department.  | Water source locations  | Project locations                  | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged as per EMP            |

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| Sr. No.  | Field /Issue                             | Mitigation Activities and Method   | Parameters monitored  | Location               | Responsible for Mitigation | Monitoring Method | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|  |  | The Contractor shall provide a list of locations and type of sources from where water for construction shall be extracted.   |   |                        |                            |                   |  |                                |
| 19   | Soil/land Erosion                        | Slope protection measures will be undertaken as per design to control soil erosion.<br>There shall be a periodic checking of the site's drainage system by DSC, PIU/IA and PMU to ensure that the water flow is unobstructed.  | Slope protection work   | Construction locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 20   | Water Pollution from Construction Wastes | The Contractor shall take all precautionary measures to prevent entering of wastewater into streams, water bodies or the irrigation system during construction. Waste will be disposed of to a suitable waste site in accordance with Hazardous Wastes (Management, Handling and Transboundary movement) Rules, 2008 and amendments till date and applicable norms | <ul style="list-style-type: none"> <li>Water pollution</li> <li>Complaint from sensitive receptors</li> </ul> | Project locations      | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 21   | Water Pollution from Fuel and Lubricants | The Contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located at least 300 m away from rivers/streams and irrigation canal/ponds if any  | <ul style="list-style-type: none"> <li>Water pollution</li> <li>Complaint from sensitive receptors</li> </ul> | Project locations      | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |



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| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
| 22   | Soil Pollution due to fuel and lubricants, construction waste | The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. All pollution parameters will be monitored as per monitoring plan.   | <ul style="list-style-type: none"> <li>Soil pollution-contamination of ground</li> </ul>  | Project locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied   |
| 23   | Generation of dust  | The contractor will take every precaution to reduce the levels of dust at construction site. Regular sprinkling of water and Stockpiles of soil will be kept covered in such a manner to minimize dust generation   | <ul style="list-style-type: none"> <li>Location of stockpiles</li> <li>Complaints from sensitive receptors</li> <li>Monitoring data</li> <li>Water sprinkling arrangement</li> <li>Cover materials</li> </ul> | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Location of stockpiles selected. Water sprinkling done. Base line and during construction air quality monitoring done as per EMP |
| 24   | Emission from Construction Vehicles, Equipment and Machinery  | All vehicles, equipment and machinery used for construction shall confirm to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The use of silent/quiet equipment compliant with India ambient noise standards and | <ul style="list-style-type: none"> <li>Heavy equipment and machinery with air pollution control</li> <li>Availability of PUC</li> </ul>   | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | PUC certificate submitted by contractor  |

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| Sr. No.  | Field /Issue    | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|  |                 | standards specified for manufacturers shall be encouraged in the sub Project.<br>The Contractor shall maintain a record of PUC for all vehicles and machinery used during the contract period which shall be produced for verification whenever required.   | certificate  |                   |                            |   |  |   |
| 25   | Noise Pollution | <p>The Contractor shall confirm that all Construction equipment used in construction shall strictly conform to the MoEF/CPCB noise standards and all Vehicles and equipment used in construction shall be fitted with exhaust silencers.</p> <p>At the construction sites noisy construction work such as crushing, operation of DG sets, use of high noise generation equipment shall be stopped during the night time between 10.00 pm to 6.00 am.</p> <p>Noise limits for construction equipment used in this project will be in conformity to the BIS/SPCB/CPCB standards</p> <p>Regular monitoring of ambient noise levels to ensure compliance to Uttarakhand Environment Protection &amp; Pollution Control Board standards.</p> | <ul style="list-style-type: none"> <li>Complaints from sensitive receptors</li> <li>Use of silencers in noise-producing equipment and sound barriers</li> <li>Monitoring data</li> </ul> | Project Locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | <p>Complied</p> <p>No such noise producing machinery mobilized at site PPE being used</p> <p>Base line monitoring done.</p> <p>During construction noise monitoring also done</p> |

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| Sr. No.  | Field /Issue   | Mitigation Activities and Method   | Parameters monitored   | Location                  | Responsible for Mitigation | Monitoring Method                 | Responsible for Monitoring                                   | Compliance Status/ Explanation     |
| 26   | Material Handling at Site  | Workers Employed on mixing cement, lime mortars, concrete etc., will be provided with protective footwear and protective masks and goggles.<br>Workers, who are engaged in welding works, will be provided with welder's protective eye-shields.<br>Workers engaged in stone breaking activities will be provided with protective goggles, masks, and clothing.<br>All concrete mixing must take place on a designated, impermeable surface. | Available protective equipments  | Project Locations         | Contractor                 | Site observation                  | Environment Specialist of DSC and Environment Officer of PMU | Complied.                          |
| 27   | Damage, and disturbance to other infrastructure in the construction site | Confirm location of infrastructure. Finalize alignment in coordination with agencies like Uttarakhand Power Corporation Limited, Bharat Sanchar Nigam Limited, etc. Ensure prior permission of respective agency<br>Realign pipelines, if required and subsequently revise IEE<br>Provide public information in case of service disruptions  | List of affected utilities / infrastructure if any and operators                                 | Specific project location | Contractor                 | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Complied wherever required         |
| 28   | Disposal of Construction Waste / Debris / Cut Material                   | The Contractor shall confirm that Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around   | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints from</li> </ul> | Project Locations         | Contractor                 | Site observation                  | Environment Specialist of DSC and Environment Officer of PMU | Complied and excess earth utilized |

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| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method                         | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|  |   | the project site indiscriminately.  | sensitive receptors   |                   |                            |   |  |   |
| 29   | Disruption / cessation of existing water supply systems due to construction activity. | Care to be taken during improvement of existing water supply systems, so that disruption in existing water supply would not occur.<br>Tentative schedule of closure should be known to affected people prior to cessation of water supply.<br>In case disruption of water supply exceeds the intimated schedule, arrangement for supply of potable water should be made.  | <ul style="list-style-type: none"> <li>Schedule of closure</li> </ul>   | Project site      | Contractor, PIU            | Checking of records<br>Visual observation | Environment Specialist of DSC and Environment Officer of PMU | Not required  |
| 30   | Safety Measures During Construction   | Personal Protective Equipment for workers on the project and adequate safety measures for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress.<br>The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from fire, etc. First aid treatment will be made available for all injuries likely to | <ul style="list-style-type: none"> <li>Site-specific Health and Safety (H&amp;S) Plan</li> <li>Equipped first-aid stations;</li> <li>Medical insurance coverage for workers</li> <li>Supplies of potable drinking water;</li> </ul> | Project Locations | Contractor                 | Document check and visual observation     | Environment Specialist of DSC and Environment Officer of PMU | PPE used by contractor First aid box available<br><br>Safety tape / barricade provided<br><br>Potable Drinking water available at site.<br><br>Safety signage |

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| Sr. No.  | Field /Issue                                      | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method  | Responsible for Monitoring                                   | Compliance Status/ Explanation                 |
|  |   | be sustained during the course of work. Contractor shall also organize periodic visits by a qualified registered medical practitioner to the site and workers camp. Contact information of Doctor, availability & location of first aid box shall be displayed in appropriate language both at work site and workers camp.<br>The Contractor will also ensure that the interests of the community are preferably not disturbed, and if unavoidable then disturbed to the minimum. Provide traffic management personnel, barricade, appropriate signage and safety information in and around the construction site and prevent local people entering into the construction site. | <ul style="list-style-type: none"> <li>Record of H&amp;S orientation trainings</li> <li>Personal protective equipments</li> <li>Sign boards for comply public safety</li> <li>Complaints from sensitive receptors</li> <li>Number of signages placed at subproject location</li> </ul> |                   |                            |                    |  | present at site                                |
| 31   | Clearing of Construction of Camps and Restoration | Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization.   | Site restoration plan  | Project Locations | Contractor                 | Site observation   | Environment Specialist of DSC and Environment Officer of PMU | Not required as no labour or construction camp |
| 32   | Risk of archaeological chance finds               | Strictly follow the protocol for chance finds in any excavation work;<br>Request FPIU/DSC or any authorized person with archaeological field training to observe  | Chance find protocol   | Project Locations | Contractor                 | Checking of record | Environment Specialist of DSC and Environment Officer of PMU | Not required                                   |

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|--|-------------------------------|---|--|----------------------|----------------------------|--|--|--|
| Sr. No.  | Field /Issue                  | Mitigation Activities and Method  | Parameters monitored                     | Location             | Responsible for Mitigation | Monitoring Method                              | Responsible for Monitoring                                   | Compliance Status/ Explanation             |
|  |                               | excavation;<br>Stop work immediately to allow further investigation if any finds are suspected; and Inform FPIU/DSC, and take any action they require ensuring its removal or protection in situ.   |  |                      |                            |  |  |  |
| 33   | Conflict with locals          | Contractor shall ensure that mostly the local labourers are employed and migratory laborer shall be employed only in case of unavoidable circumstances.   | Employment record                        | Project Locations    | Contractor                 | Checking of records                            | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>Local labours are employed |
| 34   | Environment Safeguard Officer | Contractor shall appoint one full-time suitably qualified and experienced Environment and Safety Officer who shall be responsible for assisting contractor in implementation of EMP, community liaisoning, consultations with interested/affected parties, reporting and grievance redressal on day-to-day basis. This environment and safety officer will be at site till all works related to the project including demobilization are completed. | Available Environment and safety officer | Project site/ Office | Contractor                 | Observation, checking of presence and activity | Environment Specialist of DSC and Environment Officer of PMU | Complied                                   |

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| Sr. No.  | Field /Issue   | Mitigation Activities and Method  | Parameters monitored                            | Location          | Responsible for Mitigation | Monitoring Method                                   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
| <b>Site Establishment and Preliminary Activities phase</b>   |  |   |   |                   |                            |   |  |   |
| 1  | Legislation, Permits and Agreements                          | In all instances, EA, IA contractors and consultants must remain in compliance with relevant environmental legislation of India at the national, state and local levels.<br>Proof of compliance to statutory requirements must be forwarded by the facility owner and/or contractor to PMU/PIU in relation to hot mixing, stone crushers, diesel generators etc.<br>A copy of the EMP must be kept on site during the construction period | EMP at site<br><br>NOC from competent authority | All project sites | DSC/PIU                    | Observation and document checking                   | Environment Specialist of DSC and Environment Officer of PMU | NOC not required<br><br>EMP available with PIU  |
| 2  | Education of site staff on general and Environmental Conduct | Ensure that all site personnel have a basic level of environmental awareness training<br>Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task<br>No operator shall be permitted to operate critical items of mechanical equipment without having been trained by the Contractor.  | Documentation – Training and awareness          | All project sites | DSC/PIU                    | Materials and records on awareness training program | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Site Safety training arranged by Environment Specialist of DSC and contractor Environment officer |
| 3  | Social Impacts   | Open liaison channels shall be established between the Site owner, operator, the contractors and interested and affected  | Sign boards<br><br>Project                      | All project sites | DSC/PIU                    | Materials and records on awareness                  | Environment Specialist of DSC and Environment                | Complied  |

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|  |  | parties such that any queries, complaints or suggestions pertaining to environmental management aspects can be dealt with quickly and by the appropriate person(s).<br>Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints. | information dissemination           |                       |                            | training program                  | Officer of PMU   |                                |
| 4  | Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created and the architectural /archaeological character of the surroundings | Design will include provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability.  | Maintenance procedure as per design | All project sites     | PMU/PIU                    | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Complied in design             |
| 5  | Layout of components and its location to avoid impacts on the aesthetics, sensitive environmental areas / attributes of the site   | The project components siting will avoid impacts on the aesthetics of the site, ensure minimal impacts and in compliance with statutory and regulatory requirements.  | Layout of components                | All project locations | PMU/PIU/ DSC               | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP     |



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| 6  | Selection of materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the destinations | Selection of materials will be according to specification and from approved sources<br>Procurement of all material according to the material specification of the contract document and sourced from licensed and approved sources.   | <ul style="list-style-type: none"> <li>List of approved quarry sites and sources of materials</li> <li>Construction Contractor documentation</li> </ul> | Material source sites | Contractor, PIU, DSC       | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | PMU  | Complied                           |
| 7  | Socio cultural resources- Ground disturbance can uncover and damage archaeological and historical remains`                                    | There is not such location anticipated on the project site. In case of chance of finding such location, Consult Archaeological Survey of India (ASI) and/or concerned dept. of Uttarakhand Govt. as applicable to obtain an expert assessment of the archaeological potential of the site | Chance find protocol  | All project locations | PIU, PMU                   | Site observation, document checking   | Environment Specialist of DSC and Environment Officer of PMU | NR                                 |
| 8  | Integration of energy efficiency and energy conservation programs in design of sub-project components   | The detailed designs for the sub-project components shall ensure that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, rainwater harvesting etc.   | Detailed design   | All project locations | DSC, PMU                   | Document checking and site feasibility  | PMU  | Complied                           |
| 9  | Site clearance activities, including delineation of construction areas  | Any removal of vegetation or tree felling shall be done after taking statutory permissions if required. All works shall be carried out such that the damage or disruption of flora other  | Necessary permission/ NOC   | All project locations | DSC, PIU                   | Document checking   | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Restoration being done |

**Project: Water Supply** - Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.

**Rudraprayag , Karanprayag, Gauchar, Uttarkashi & Devprayag**

**Package No: UK/UEAP-WSS-GW/01- Lot 1, Lot 2, Lot 3, Lot 4 & Lot 5**

| Sr. No.                   | Field /Issue   | Mitigation Activities and Method  | Parameters monitored              | Location              | Responsible for Mitigation | Monitoring Method                  | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|---------------------------|--|---|-----------------------------------|-----------------------|----------------------------|------------------------------------|--|--------------------------------|
|                           |  | than those identified for cutting is minimum.<br>Only ground cover/shrubs that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the Environmental Expert of DSC<br>All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures as per the rehabilitation plan |                                   |                       |                            |                                    |  |                                |
| 10                        | Blockage of access in residential area, commercial area and sensitive location like school, college, hospitals and court | Contractor will identify such location in the preconstruction stage and prepare plan approved by DSC to minimize inconvenience to the people.   | Complain from sensitive receptors | Construction location | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 11                        | Slope protection near reservoir and intake well  | Retaining wall will constructed near reservoir and intake well  | Protection work                   | -                     | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP     |
| <b>Construction phase</b> |  |   |                                   |                       |                            |                                    |  |                                |

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| Sr. No.  | Field /Issue  | Mitigation Activities and Method   | Parameters monitored  | Location               | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
| 12   | Construction Camps - Location, Selection, Design and Layout | <p>Siting of the construction camps, labour camp, and stockpiles shall be as per the guidelines of UEPPCB, ULB, village panchayat and any other applicable guideline to the local site. The contractor will assess the impact of the construction camp and should be acceptable to the PIU/ IA/PMU.</p> <p>Construction camps will be located away from settlements and drainage from and through the camps will not endanger any domestic or public water supply. Construction camps including sanitation facilities must be adequately drained.</p> <p>Sewage management through septic tanks and solid waste management through local ULB system or other alternate measures.</p> | Selected location for construction work camps and stockpile area,                           | Construction camp site | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | No Labour camp , Workers are living in rented house all facilities provided as per EMP |
| 13   | Drinking water availability                                 | Sufficient supply of potable water to be provided and maintained as per the standards, requirements, test methods and sampling procedure according to IS:10500.  | Availability of drinking water  | Working and camp site  | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Provided at working site and living place  |
| 14   | Waste disposal  | Pre-identified disposal location (identified by Contractor in compliance to relevant regulation and approved by DSC) shall be part of Comprehensive Waste Disposal Plan Solid  | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints</li> </ul> | Project Locations      | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual</li> </ul> | Environment Specialist of DSC and Environment                | Under compliance<br>Utilization of   |

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| Sr. No.  | Field /Issue                          | Mitigation Activities and Method   | Parameters monitored  | Location                           | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|  |                                       | Waste Management Plan.<br>Contractor shall ensure that waste shall not be disposed off near the water course or agricultural land, Orchards and Natural Habitats like Grasslands.  | from sensitive receptors  |                                    |                            | inspection of sites | Officer of PMU   | excess earth being done.       |
| 15   | Stockpiling of construction materials | Stockpiling of construction materials and excavated earth or silt in case of construction of river bed filtration does not impact obstruct the drainage and Stockpiles will be covered to protect from dust and erosion.   | Selected location and facility  | Project Locations                  | Contractor                 | Site checking       | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 16   | Access to Site                        | Contractors shall ensure that all side drains and scour check walls on access and haul roads are functioning properly and are well maintained.<br>Contractors shall ensure that access roads are maintained in good condition  | <ul style="list-style-type: none"> <li>• Involvement of traffic dept.</li> <li>• Road closure planning</li> <li>• Maintenance of road</li> </ul>            | Specific project location          | Contractor                 | Site observation    | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |
| 17   | Quarry Operations                     | Contractor shall finalize the quarry for procurement of construction materials after assessment of the availability of sufficient quantity of materials, quality and other logistic arrangements.<br>The Contractor shall obtain materials from approved quarries only after consent of the Department of Mines and Geology and District | <ul style="list-style-type: none"> <li>• List of approved quarry sites and sources of materials</li> <li>• Construction Contractor documentation</li> </ul> | Quarries and material source areas | Contractor                 | Site observation    | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |

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|--|--|--|---|------------------------|----------------------------|-------------------|--|-----------------------------------|
| Sr. No.  | Field /Issue                             | Mitigation Activities and Method   | Parameters monitored  | Location               | Responsible for Mitigation | Monitoring Method | Responsible for Monitoring                                   | Compliance Status/ Explanation    |
|  |  | Administration.  |   |                        |                            |                   |  |                                   |
| 18   | Arrangement for Construction Water       | The contractor shall use ground/surface water as a source of water for the construction with the written consent from the concerned Department.<br>The Contractor shall provide a list of locations and type of sources from where water for construction shall be extracted.  | Water source locations  | Project locations      | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged in consultation with PIU |
| 19   | Soil/Land Erosion                        | Slope protection measures will be undertaken as per design to control soil erosion.<br>There shall be a periodic checking of the site's drainage system by DSC, PIU/IA and PMU to ensure that the water flow is unobstructed.  | Slope protection work   | Construction locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Under Compliance                  |
| 20   | Water Pollution from Construction Wastes | The Contractor shall take all precautionary measures to prevent entering of wastewater into streams, water bodies or the irrigation system during construction. Waste will be disposed of to a suitable waste site in accordance with Hazardous Wastes (Management, Handling and Transboundary movement) Rules, 2008 and amendments till date and applicable norms | <ul style="list-style-type: none"> <li>Water pollution</li> <li>Complaint from sensitive receptors</li> </ul> | Project locations      | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged near water source        |
| 21   | Water Pollution from Fuel and Lubricants | The Contractor shall ensure that all construction vehicle parking locations, fuel/   | <ul style="list-style-type: none"> <li>Water</li> </ul>   | Project                | Contractor                 | Site              | Environment Specialist of                                    | Complied                          |

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|--|---|---|---|-------------------|----------------------------|---|--|--|
| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
|  |   | lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located at least 300 m away from rivers/streams and irrigation canal/ponds if any                             | pollution <ul style="list-style-type: none"> <li>Complaint from sensitive receptors</li> </ul>  | locations         |                            | observation   | DSC and Environment Officer of PMU                           |  |
| 22   | Soil Pollution due to fuel and lubricants, construction waste | The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. All pollution parameters will be monitored as per monitoring plan.       | <ul style="list-style-type: none"> <li>Soil pollution-contamination of ground</li> </ul>  | Project locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied   |
| 23   | Generation of dust  | The contractor will take every precaution to reduce the levels of dust at construction site. Regular sprinkling of water and Stockpiles of soil will be kept covered in such a manner to minimize dust generation | <ul style="list-style-type: none"> <li>Location of stockpiles</li> <li>Complaints from sensitive receptors</li> <li>Monitoring data</li> <li>Water sprinkling arrangement</li> <li>Cover materials</li> </ul> | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Location of stockpiles selected. Covering of materials implemented<br>Water sprinkling being done. Base line air quality monitoring done and during construction monitoring also |

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|--|--|--|---|-------------------|----------------------------|---|--|---|
| Sr. No.  | Field /Issue   | Mitigation Activities and Method   | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|  |  |  |   |                   |                            |   |  | done as per EMP   |
| 24   | Emission from Construction Vehicles, Equipment and Machinery | All vehicles, equipment and machinery used for construction shall confirm to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to.<br>The use of silent/quiet equipment compliant with India ambient noise standards and standards specified for manufacturers shall be encouraged in the sub Project.<br>The Contractor shall maintain a record of PUC for all vehicles and machinery used during the contract period which shall be produced for verification whenever required. | <ul style="list-style-type: none"> <li>Heavy equipment and machinery with air pollution control</li> <li>Availability of PUC certificate</li> </ul> | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | PUC certificate submitted   |
| 25   | Noise Pollution  | The Contractor shall confirm that all Construction equipment used in construction shall strictly conform to the MoEF/CPCB noise standards and all Vehicles and equipment used in construction shall be fitted with exhaust silencers.<br>At the construction sites noisy construction  | <ul style="list-style-type: none"> <li>Complaints from sensitive receptors</li> <li>Use of silencers in noise-producing equipment</li> </ul>        | Project Locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>No such noise producing machinery mobilized at site<br><br>PPE in use |

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|--|---------------------------|--|---|-------------------|----------------------------|-------------------|--|--|
| Sr. No.  | Field /Issue              | Mitigation Activities and Method   | Parameters monitored                    | Location          | Responsible for Mitigation | Monitoring Method | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
|  |                           | work such as crushing, operation of DG sets, use of high noise generation equipment shall be stopped during the night time between 10.00 pm to 6.00 am.<br>Noise limits for construction equipment used in this project will be in conformity to the BIS/SPCB/CPCB standards<br>Regular monitoring of ambient noise levels to ensure compliance to Uttarakhand Environment Protection & Pollution Control Board standards.                   | and sound barriers<br>• Monitoring data |                   |                            |                   |  | Base line monitoring done.<br><br>During construction monitoring also done |
| 26   | Material Handling at Site | Workers Employed on mixing cement, lime mortars, concrete etc., will be provided with protective footwear and protective masks and goggles.<br>Workers, who are engaged in welding works, will be provided with welder's protective eye-shields.<br>Workers engaged in stone breaking activities will be provided with protective goggles, masks, and clothing.<br>All concrete mixing must take place on a designated, impermeable surface. | Available protective equipments         | Project Locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied.  |



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|--|---|---|--|---------------------------|----------------------------|---|--|---|
| Sr. No.  | Field /Issue  | Mitigation Activities and Method  | Parameters monitored   | Location                  | Responsible for Mitigation | Monitoring Method                         | Responsible for Monitoring                                   | Compliance Status/ Explanation                                      |
| 27   | Damage, and disturbance to other infrastructure in the construction site              | Confirm location of infrastructure. Finalize alignment in coordination with agencies like Uttarakhand Power Corporation Limited, Bharat Sanchar Nigam Limited, etc. Ensure prior permission of respective agency<br>Realign pipelines, if required and subsequently revise IEE<br>Provide public information in case of service disruptions | List of affected utilities / infrastructure if any and operators   | Specific project location | Contractor                 | Observation and document checking         | Environment Specialist of DSC and Environment Officer of PMU | Not required  |
| 28   | Disposal of Construction Waste / Debris / Cut Material                                | The Contractor shall confirm that Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around the project site indiscriminately.   | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints from sensitive receptors</li> </ul> | Project Locations         | Contractor                 | Site observation                          | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>Utilization of excess earth and demolish waste done |
| 29   | Disruption / cessation of existing water supply systems due to construction activity. | Care to be taken during improvement of existing water supply systems, so that disruption in existing water supply would not occur.<br>Tentative schedule of closure should be known to affected people prior to cessation of water supply.<br>In case disruption of water supply exceeds the intimated schedule, arrangement for supply of  | <ul style="list-style-type: none"> <li>Schedule of closure</li> </ul>  | Project site              | Contractor, PIU            | Checking of records<br>Visual observation | Environment Specialist of DSC and Environment Officer of PMU | Not required  |

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**Rudraprayag , Karanprayag, Gauchar, Uttarkashi & Devprayag**

**Package No: UK/UEAP-WSS-GW/01- Lot 1, Lot 2, Lot 3, Lot 4 & Lot 5**

| Sr. No. | Field /Issue                        | Mitigation Activities and Method   | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method                     | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
|---------|-------------------------------------|--|---|-------------------|----------------------------|---------------------------------------|--|--|
|         |                                     | potable water should be made.  |   |                   |                            |                                       |  |  |
| 30      | Safety Measures During Construction | <p>Personal Protective Equipment for workers on the project and adequate safety measures for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress.</p> <p>The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from fire, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work. Contractor shall also organize periodic visits by a qualified registered medical practitioner to the site and workers camp. Contact information of Doctor, availability &amp; location of first aid box shall be displayed in appropriate language both at work site and workers camp. The Contractor will also ensure that the interests of the community are preferably not disturbed, and if unavoidable then disturbed to</p> | <ul style="list-style-type: none"> <li>• Site-specific Health and Safety (H&amp;S) Plan</li> <li>• Equipped first-aid stations;</li> <li>• Medical insurance coverage for workers</li> <li>• Supplies of potable drinking water;</li> <li>• Record of H&amp;S orientation trainings</li> <li>• Personal protective equipments</li> <li>• Sign boards for comply public safety</li> <li>• Complaints from sensitive receptors</li> </ul> | Project Locations | Contractor                 | Document check and visual observation | Environment Specialist of DSC and Environment Officer of PMU | <p>PPE used by contractor</p> <p>First aid box available</p> <p>Safety tape / barricade provided</p> <p>Supplies of potable drinking water at all sites</p> <p>Sign board at all sites</p> <p>Overall complied</p> |

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**Rudraprayag , Karanprayag, Gauchar, Uttarkashi & Devprayag**

**Package No: UK/UEAP-WSS-GW/01- Lot 1, Lot 2, Lot 3, Lot 4 & Lot 5**

| Sr. No. | Field /Issue                                      | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation                     |
|---------|---|---|--|-------------------|----------------------------|---------------------|--|--|
|         |   | the minimum. Provide traffic management personnel, barricade, appropriate signage and safety information in and around the construction site and prevent local people entering into the construction site.  | <ul style="list-style-type: none"> <li>Number of signages placed at subproject location</li> </ul> |                   |                            |                     |  |  |
| 31      | Clearing of Construction of Camps and Restoration | Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization.   | Site restoration plan  | Project Locations | Contractor                 | Site observation    | Environment Specialist of DSC and Environment Officer of PMU | Not required as workers are living in rented house |
| 32      | Risk of archaeological chance finds               | Strictly follow the protocol for chance finds in any excavation work;<br>Request FPIU/DSC or any authorized person with archaeological field training to observe excavation;<br>Stop work immediately to allow further investigation if any finds are suspected; and<br>Inform FPIU/DSC, and take any action they require ensuring its removal or protection in situ. | Chance find protocol   | Project Locations | Contractor                 | Checking of record  | Environment Specialist of DSC and Environment Officer of PMU | Not required till date                             |
| 33      | Conflict with locals                              | Contractor shall ensure that mostly the local labourers are employed and migratory laborer shall be employed only in case of unavoidable circumstances.   | Employment record  | Project Locations | Contractor                 | Checking of records | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>Local labours are employed         |

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**Package No: UK/UEAP-WSS-GW/01- Lot 1, Lot 2, Lot 3, Lot 4 & Lot 5**

| Sr. No. | Field /Issue                  | Mitigation Activities and Method  | Parameters monitored                     | Location             | Responsible for Mitigation | Monitoring Method                              | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|---------|-------------------------------|---|--|----------------------|----------------------------|--|--|--------------------------------|
| 34      | Environment Safeguard Officer | Contractor shall appoint one full-time suitably qualified and experienced Environment and Safety Officer who shall be responsible for assisting contractor in implementation of EMP, community liaisoning, consultations with interested/affected parties, reporting and grievance redressal on day-to-day basis. This environment and safety officer will be at site till all works related to the project including demobilization are completed. | Available Environment and safety officer | Project site/ Office | Contractor                 | Observation, checking of presence and activity | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |

| <b>Project: Water Supply</b> - Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump & Electrical & Instrumentation works and AMR metering at Srinagar<br><br><b>Project:</b> Supply, Laying, Jointing, Testing, Commissioning of Tubewells and AMR meter at Srinagar<br><br><b>Package No:</b> UK/UEAP-WSS-GW/02 and UK/UEAP-WSS-GW/02-01 |  |   |  |                   |                            |   |  |   |
|---|--|---|--|-------------------|----------------------------|---|--|---|
| Sr. No.   | Field /Issue   | Mitigation Activities and Method  | Parameters monitored                                 | Location          | Responsible for Mitigation | Monitoring Method                                   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
| <b>Site Establishment and Preliminary Activities phase</b>  |  |   |  |                   |                            |   |  |   |
| 1   | Legislation, Permits and Agreements                          | In all instances, EA, IA contractors and consultants must remain in compliance with relevant environmental legislation of India at the national, state and local levels.<br>Proof of compliance to statutory requirements must be forwarded by the facility owner and/or contractor to PMU/PIU in relation to hot mixing, stone crushers, diesel generators etc.<br>A copy of the EMP must be kept on site during the construction period | EMP at site<br><br>NOC from competent authority      | All project sites | DSC/PIU                    | Observation and document checking                   | Environment Specialist of DSC and Environment Officer of PMU | NOC not required<br><br>EMP available with PIU  |
| 2   | Education of site staff on general and Environmental Conduct | Ensure that all site personnel have a basic level of environmental awareness training<br>Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task<br>No operator shall be permitted to operate critical items of mechanical equipment without having been trained by the Contractor.  | Documentation – Training and awareness               | -                 | DSC/PIU                    | Materials and records on awareness training program | Environment Specialist of DSC and Environment Officer of PMU | Complied<br>Site Safety training arranged by Environment Specialist of DSC<br>Tool box training will be required on regular basis |
| 3   | Social Impacts   | Open liaison channels shall be established between the Site owner, operator, the contractors and interested and affected parties such that any queries, complaints or suggestions pertaining to environmental management aspects can be dealt   | Sign boards<br><br>Project information dissemination | -                 | DSC/PIU                    | Materials and records on awareness training program | Environment Specialist of DSC and Environment Officer of PMU | Complied  |

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|---|---|---|---|-----------------------|----------------------------|---|--|---|
| Sr. No.   | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location              | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|   |   | with quickly and by the appropriate person(s).<br>Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.  |   |                       |                            |   |  |   |
| 4   | Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created and the architectural/archaeological character of the surroundings | Design will include provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability.  | Maintenance procedure as per design   | -                     | PMU/PIU                    | Observation and document checking   | Environment Specialist of DSC and Environment Officer of PMU | Complied in design  |
| 5   | Layout of components and its location to avoid impacts on the aesthetics, sensitive environmental areas / attributes of the site  | The project components siting will avoid impacts on the aesthetics of the site, ensure minimal impacts and in compliance with statutory and regulatory requirements.  | Layout of components  | All project locations | PMU/PIU/ DSC               | Observation and document checking   | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP  |
| 6   | Selection of materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the  | Selection of materials will be according to specification and from approved sources<br>Procurement of all material according to the material specification of the contract document and sourced from licensed and approved sources. | <ul style="list-style-type: none"> <li>List of approved quarry sites and sources of materials</li> <li>Construction Contractor</li> </ul> | Material source sites | Contractor, PIU, DSC       | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | PMU  | Under compliance Approval obtained/ or to be obtained from PMU and DSC. |

| <b>Project: Water Supply</b> - Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump & Electrical & Instrumentation works and AMR metering at Srinagar<br><br><b>Project:</b> Supply, Laying, Jointing, Testing, Commissioning of Tubewells and AMR meter at Srinagar<br><br><b>Package No:</b> UK/UEAP-WSS-GW/02 and UK/UEAP-WSS-GW/02-01 |  |  |                           |           |                            |  |  |                                |
|---|--|--|---------------------------|-----------|----------------------------|--|--|--------------------------------|
| Sr. No.   | Field /Issue   | Mitigation Activities and Method   | Parameters monitored      | Location  | Responsible for Mitigation | Monitoring Method                      | Responsible for Monitoring                                   | Compliance Status/ Explanation |
|   | destinations   |  | documentation             |           |                            |  |  |                                |
| 7   | Socio cultural resources- Ground disturbance can uncover and damage archaeological and historical remains` | There is not such location anticipated on the project site. In case of chance of finding such location, Consult Archaeological Survey of India (ASI) and/or concerned dept. of Uttarakhand Govt. as applicable to obtain an expert assessment of the archaeological potential of the site  | Chance find protocol      | All sites | PIU, PMU                   | Site observation, document checking    | Environment Specialist of DSC and Environment Officer of PMU | NR                             |
| 8   | Integration of energy efficiency and energy conservation programs in design of sub-project components      | The detailed designs for the sub-project components shall ensure that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, rainwater harvesting etc.  | Detailed design           | -         | DSC, PMU                   | Document checking and site feasibility | PMU  | Complied                       |
| 9   | Site clearance activities, including delineation of construction areas                                     | Any removal of vegetation or tree felling shall be done after taking statutory permissions if required. All works shall be carried out such that the damage or disruption of flora other than those identified for cutting is minimum.<br>Only ground cover/shrubs that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the Environmental Expert of DSC<br>All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation | Necessary permission/ NOC | -         | DSC, PIU                   | Document checking                      | Environment Specialist of DSC and Environment Officer of PMU | Complied                       |

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|---|--|--|---|------------------------|----------------------------|------------------------------------|--|---|
| Sr. No.   | Field /Issue   | Mitigation Activities and Method   | Parameters monitored  | Location               | Responsible for Mitigation | Monitoring Method                  | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|   |  | procedures as per the rehabilitation plan  |   |                        |                            |                                    |  |   |
| 10  | Blockage of access in residential area, commercial area and sensitive location like school, college, hospitals and court | Contractor will identify such location in the preconstruction stage and prepare plan approved by DSC to minimize inconvenience to the people.  | Complain from sensitive receptors                                 | Construction location  | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied  |
| 11  | Slope protection near reservoir and intake well  | Retaining wall will constructed near reservoir and intake well   | Protection work   | -                      | PMU/DSC                    | Observation and checking of design | Environment Specialist of DSC and Environment Officer of PMU | Complied in design and EMP  |
| <b>Construction phase</b>   |  |  |   |                        |                            |                                    |  |   |
| 12  | Construction Camps - Location, Selection, Design and Layout  | Siting of the construction camps, labour camp, and stockpiles shall be as per the guidelines of UEPPCB, ULB, village panchayat and any other applicable guideline to the local site. The contractor will assess the impact of the construction camp and should be acceptable to the PIU/ IA/PMU. Construction camps will be located away from settlements and drainage from and through the camps will not endanger any domestic or public water supply. Construction camps including sanitation facilities must be adequately drained. Sewage management through septic tanks and solid waste management through local ULB system | Selected location for construction work camps and stockpile area, | Construction camp site | Contractor                 | Site observation                   | Environment Specialist of DSC and Environment Officer of PMU | Arranged rented house<br><br>All facilities- toilet, drinking water provided as per EMP |



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|---|---------------------------------------|---|--|---------------------------|----------------------------|---|--|---|
| Sr. No.   | Field /Issue                          | Mitigation Activities and Method  | Parameters monitored   | Location                  | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation                              |
|   |                                       | or other alternate measures.  |  |                           |                            |   |  |   |
| 13  | Drinking water availability           | Sufficient supply of potable water to be provided and maintained as per the standards, requirements, test methods and sampling procedure according to IS: 10500.  | Availability of drinking water   | Working and camp site     | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Provided at working sites and rented houses                 |
| 14  | Waste disposal                        | Pre-identified disposal location (identified by Contractor in compliance to relevant regulation and approved by DSC) shall be part of Comprehensive Waste Disposal Plan Solid Waste Management Plan.<br>Contractor shall ensure that waste shall not be disposed off near the water course or agricultural land, Orchards and Natural Habitats like Grasslands. | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints from sensitive receptors</li> </ul>                       | Project Locations         | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Under compliance Utilization of excess earth is being done. |
| 15  | Stockpiling of construction materials | Stockpiling of construction materials and excavated earth or silt in case of construction of river bed filtration does not impact obstruct the drainage and Stockpiles will be covered to protect from dust and erosion.  | Selected location and facility   | Project Locations         | Contractor                 | Site checking   | Environment Specialist of DSC and Environment Officer of PMU | Complied  |
| 16  | Access to Site                        | Contractors shall ensure that all side drains and scour check walls on access and haul roads are functioning properly and are well maintained.<br>Contractors shall ensure that access roads are maintained in good condition   | <ul style="list-style-type: none"> <li>Involvement of traffic dept.</li> <li>Road closure planning</li> <li>Maintenance of road</li> </ul> | Specific project location | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied  |

| <b>Project: Water Supply</b> - Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump & Electrical & Instrumentation works and AMR metering at Srinagar<br><br><b>Project:</b> Supply, Laying, Jointing, Testing, Commissioning of Tubewells and AMR meter at Srinagar<br><br><b>Package No: UK/UEAP-WSS-GW/02 and UK/UEAP-WSS-GW/02-01</b> |  |  |   |                                    |                            |                   |  |                                   |
|---|--|--|---|------------------------------------|----------------------------|-------------------|--|-----------------------------------|
| Sr. No.   | Field /Issue                             | Mitigation Activities and Method   | Parameters monitored  | Location                           | Responsible for Mitigation | Monitoring Method | Responsible for Monitoring                                   | Compliance Status/ Explanation    |
| 17  | Quarry Operations                        | Contractor shall finalize the quarry for procurement of construction materials after assessment of the availability of sufficient quantity of materials, quality and other logistic arrangements.<br>The Contractor shall obtain materials from approved quarries only after consent of the Department of Mines and Geology and District Administration. | <ul style="list-style-type: none"> <li>List of approved quarry sites and sources of materials</li> <li>Construction Contractor documentation</li> </ul> | Quarries and material source areas | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                          |
| 18  | Arrangement for Construction Water       | The contractor shall use ground/surface water as a source of water for the construction with the written consent from the concerned Department.<br>The Contractor shall provide a list of locations and type of sources from where water for construction shall be extracted.  | Water source locations  | Project locations                  | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged in consultation with PIU |
| 19  | Soil/land Erosion                        | Slope protection measures will be undertaken as per design to control soil erosion.<br>There shall be a periodic checking of the site's drainage system by DSC, PIU/IA and PMU to ensure that the water flow is unobstructed.  | Slope protection work   | Construction locations             | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied                          |
| 20  | Water Pollution from Construction Wastes | The Contractor shall take all precautionary measures to prevent entering of wastewater into streams, water bodies or the irrigation system during construction. Waste will be disposed of to a suitable waste site in accordance with Hazardous Wastes (Management, Handling and   | <ul style="list-style-type: none"> <li>Water pollution</li> <li>Complaint from sensitive receptors</li> </ul>   | Project locations                  | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Arranged near water source        |

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|---|---|--|---|-------------------|----------------------------|---|--|---|
| Sr. No.   | Field /Issue  | Mitigation Activities and Method   | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|   |   | Transboundary movement) Rules, 2008 and amendments till date and applicable norms  |   |                   |                            |   |  |   |
| 21  | Water Pollution from Fuel and Lubricants                      | The Contractor shall ensure that all construction vehicle parking locations, fuel/ lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located at least 300 m away from rivers/streams and irrigation canal/ponds if any | <ul style="list-style-type: none"> <li>Water pollution</li> <li>Complaint from sensitive receptors</li> </ul>   | Project locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied  |
| 22  | Soil Pollution due to fuel and lubricants, construction waste | The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. All pollution parameters will be monitored as per monitoring plan.  | <ul style="list-style-type: none"> <li>Soil pollution-contamination of ground</li> </ul>  | Project locations | Contractor                 | Site observation  | Environment Specialist of DSC and Environment Officer of PMU | Complied  |
| 23  | Generation of dust  | The contractor will take every precaution to reduce the levels of dust at construction site. Regular sprinkling of water and Stockpiles of soil will be kept covered in such a manner to minimize dust generation  | <ul style="list-style-type: none"> <li>Location of stockpiles</li> <li>Complaints from sensitive receptors</li> <li>Monitoring data</li> <li>Water sprinkling arrangement</li> <li>Cover materials</li> </ul> | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | <p>Complied</p> <p>Location of stockpiles selected. Covering of materials done</p> <p>Water sprinkling being done.</p> <p>Base line air quality monitoring done and during construction monitoring also</p> |

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|---|--|---|--|-------------------|----------------------------|---|--|---|
| Sr. No.   | Field /Issue   | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method   | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|   |  |   |  |                   |                            |   |  | done as per EMP   |
| 24  | Emission from Construction Vehicles, Equipment and Machinery | All vehicles, equipment and machinery used for construction shall confirm to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The use of silent/quiet equipment compliant with India ambient noise standards and standards specified for manufacturers shall be encouraged in the sub Project.<br>The Contractor shall maintain a record of PUC for all vehicles and machinery used during the contract period which shall be produced for verification whenever required. | <ul style="list-style-type: none"> <li>Heavy equipment and machinery with air pollution control</li> <li>Availability of PUC certificate</li> </ul>                                      | Project locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | PUC certificate submitted   |
| 25  | Noise Pollution  | The Contractor shall confirm that all Construction equipment used in construction shall strictly conform to the MoEF/CPCB noise standards and all Vehicles and equipment used in construction shall be fitted with exhaust silencers.<br>At the construction sites noisy construction work such as crushing, operation of DG sets, use of high noise generation equipment shall be stopped during the night time between 10.00 pm to 6.00 am.<br>Noise limits for construction equipment used in this   | <ul style="list-style-type: none"> <li>Complaints from sensitive receptors</li> <li>Use of silencers in noise-producing equipment and sound barriers</li> <li>Monitoring data</li> </ul> | Project Locations | Contractor                 | <ul style="list-style-type: none"> <li>Checking of records</li> <li>Visual inspection of sites</li> </ul> | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>No such noise producing machinery mobilized at site<br><br>PPE are in use<br><br>Base line monitoring done. |

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|---|--|--|--|---------------------------|----------------------------|-----------------------------------|--|---|
| Sr. No.   | Field /Issue   | Mitigation Activities and Method   | Parameters monitored   | Location                  | Responsible for Mitigation | Monitoring Method                 | Responsible for Monitoring                                   | Compliance Status/ Explanation  |
|   |  | project will be in conformity to the BIS/SPCB/CPCB standards<br>Regular monitoring of ambient noise levels to ensure compliance to Uttarakhand Environment Protection & Pollution Control Board standards.   |  |                           |                            |                                   |  | During construction monitoring also done                                |
| 26  | Material Handling at Site  | Workers Employed on mixing cement, lime mortars, concrete etc., will be provided with protective footwear and protective masks and goggles.<br>Workers, who are engaged in welding works, will be provided with welder's protective eye-shields.<br>Workers engaged in stone breaking activities will be provided with protective goggles, masks, and clothing.<br>All concrete mixing must take place on a designated, impermeable surface. | Available protective equipments                                  | Project Locations         | Contractor                 | Site observation                  | Environment Specialist of DSC and Environment Officer of PMU | Partially complied. Instruction given to contractor for full compliance |
| 27  | Damage, and disturbance to other infrastructure in the construction site | Confirm location of infrastructure. Finalize alignment in coordination with agencies like Uttarakhand Power Corporation Limited, Bharat Sanchar Nigam Limited, etc. Ensure prior permission of respective agency<br>Realign pipelines, if required and subsequently revise IEE<br>Provide public information in case of service  | List of affected utilities / infrastructure if any and operators | Specific project location | Contractor                 | Observation and document checking | Environment Specialist of DSC and Environment Officer of PMU | Not required now.   |

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|---|---|---|---|-------------------|----------------------------|---|--|--|
| Sr. No.   | Field /Issue  | Mitigation Activities and Method  | Parameters monitored  | Location          | Responsible for Mitigation | Monitoring Method                         | Responsible for Monitoring                                   | Compliance Status/ Explanation   |
|   |   | disruptions   |   |                   |                            |   |  |  |
| 28  | Disposal of Construction Waste / Debris / Cut Material                                | The Contractor shall confirm that Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around the project site indiscriminately.   | <ul style="list-style-type: none"> <li>Waste Management List</li> <li>Complaints from sensitive receptors</li> </ul>  | Project Locations | Contractor                 | Site observation                          | Environment Specialist of DSC and Environment Officer of PMU | Complied Utilization of excess earth and demolish waste done   |
| 29  | Disruption / cessation of existing water supply systems due to construction activity. | Care to be taken during improvement of existing water supply systems, so that disruption in existing water supply would not occur. Tentative schedule of closure should be known to affected people prior to cessation of water supply. In case disruption of water supply exceeds the intimated schedule, arrangement for supply of potable water should be made.  | <ul style="list-style-type: none"> <li>Schedule of closure</li> </ul>   | Project site      | Contractor, PIU            | Checking of records<br>Visual observation | Environment Specialist of DSC and Environment Officer of PMU | Not required as per present nature of work   |
| 30  | Safety Measures During Construction   | Personal Protective Equipment for workers on the project and adequate safety measures for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress. The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from fire, etc. First aid treatment will be made available for all | <ul style="list-style-type: none"> <li>Site-specific Health and Safety (H&amp;S) Plan</li> <li>Equipped first-aid stations;</li> <li>Medical insurance coverage for workers</li> <li>Supplies of potable drinking water;</li> </ul> | Project Locations | Contractor                 | Document check and visual observation     | Environment Specialist of DSC and Environment Officer of PMU | PPE used by contractor<br><br>First aid box available at all working ocations<br><br>Safety tape / barricade provided at all excavated sites |

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|---|---|---|--|-------------------|----------------------------|--------------------|--|---|
| Sr. No.   | Field /Issue                                      | Mitigation Activities and Method  | Parameters monitored   | Location          | Responsible for Mitigation | Monitoring Method  | Responsible for Monitoring                                   | Compliance Status/ Explanation                  |
|   |   | <p>injuries likely to be sustained during the course of work. Contractor shall also organize periodic visits by a qualified registered medical practitioner to the site and workers camp. Contact information of Doctor, availability &amp; location of first aid box shall be displayed in appropriate language both at work site and workers camp.</p> <p>The Contractor will also ensure that the interests of the community are preferably not disturbed, and if unavoidable then disturbed to the minimum. Provide traffic management personnel, barricade, appropriate signage and safety information in and around the construction site and prevent local people entering into the construction site.</p> | <ul style="list-style-type: none"> <li>Record of H&amp;S orientation trainings</li> <li>Personal protective equipments</li> <li>Sign boards for comply public safety</li> <li>Complaints from sensitive receptors</li> <li>Number of signages placed at subproject location</li> </ul> |                   |                            |                    |  | <p>Signages present</p> <p>Overall complied</p> |
| 31  | Clearing of Construction of Camps and Restoration | Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization.   | Site restoration plan  | Project Locations | Contractor                 | Site observation   | Environment Specialist of DSC and Environment Officer of PMU | Not required , workers living in rented houses  |
| 32  | Risk of archaeological chance finds               | Strictly follow the protocol for chance finds in any excavation work;<br>Request FPIU/DSC or any authorized person with archaeological field training to observe excavation;<br>Stop work immediately to allow further investigation if any finds are suspected; and  | Chance find protocol   | Project Locations | Contractor                 | Checking of record | Environment Specialist of DSC and Environment Officer of PMU | Not required                                    |

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|---|-------------------------------|---|--|----------------------|----------------------------|--|--|--|
| Sr. No.   | Field /Issue                  | Mitigation Activities and Method  | Parameters monitored                     | Location             | Responsible for Mitigation | Monitoring Method                              | Responsible for Monitoring                                   | Compliance Status/ Explanation             |
|   |                               | Inform FPIU/DSC, and take any action they require ensuring its removal or protection in situ.   |  |                      |                            |  |  |  |
| 33  | Conflict with locals          | Contractor shall ensure that mostly the local labourers are employed and migratory laborer shall be employed only in case of unavoidable circumstances.   | Employment record                        | Project Locations    | Contractor                 | Checking of records                            | Environment Specialist of DSC and Environment Officer of PMU | Complied<br><br>Local labours are employed |
| 34  | Environment Safeguard Officer | Contractor shall appoint one full-time suitably qualified and experienced Environment and Safety Officer who shall be responsible for assisting contractor in implementation of EMP, community liaisoning, consultations with interested/affected parties, reporting and grievance redressal on day-to-day basis. This environment and safety officer will be at site till all works related to the project including demobilization are completed. | Available Environment and safety officer | Project site/ Office | Contractor                 | Observation, checking of presence and activity | Environment Specialist of DSC and Environment Officer of PMU | Complied                                   |



ANNEXURE 3: ENVIRONMENT PERFORMANCE FACT SHEET

| S.No.                         | Sub project Code                    | Name of Sub Project   | Name of Contractor               | EMP Part of contract Document<br>(Yes / No) | EMP being Implemented<br>(Yes / No) | Overall Status of EMP Implementation<br>(Excellent, Satisfactory, Partially Satisfactory,<br>Below Satisfactory) | Environmental Consents / Clearances<br>Required |         |                |               |                         |                                     | Nomination of<br>Environmental &<br>Social Safeguard<br>Officer by<br>Contractor<br>(Nominated / Yet<br>to be Nominated) | Dust Control<br>(Excellent,<br>Satisfactory,<br>Partially<br>Satisfactory,<br>Below<br>Satisfaction) | Labour Camp<br>Management<br>(Excellent,<br>Satisfactory,<br>Partially<br>Satisfactory,<br>Below<br>Satisfaction) | Workers<br>Safety<br>Measures<br>(Excellent,<br>Satisfactory,<br>Partially<br>Satisfactory,<br>Below<br>Satisfaction) | Traffic Safety<br>Measures<br>(Excellent,<br>Satisfactory,<br>Partially<br>Satisfactory,<br>Below<br>Satisfaction) |
|-------------------------------|-------------------------------------|---|----------------------------------|---|-------------------------------------|--|---|---------|----------------|---------------|-------------------------|-------------------------------------|--|--|---|---|--|
|                               |                                     |   |                                  |   |                                     |  | Tree cutting                                    | Crusher | Batching Plant | Hot Mix Plant | Diesel Generator<br>set | PUC for<br>Contractor's<br>Vehicles |  |  |   |   |  |
| UEAP Water supply sub Project |                                     |   |                                  |   |                                     |  |   |         |                |               |                         |                                     |  |  |   |   |  |
| 1                             | (UK/UEAP-WSS-KU/01 Lot 1)<br>Kapkot | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula | Kasmirial Construction Pvt. Ltd. | Yes   | Yes                                 | Satisfactory   | NR  | NR      | NR             | NR            | NR                      | Submitted                           | Nominated  | Satisfactory   | Rented house arranged   | Satisfactory.   | Not required now   |

|   |   |   |  |     |      |                |    |    |    |    |    |           |           |              |                          |                |                  |
|---|---|---|--|-----|------|----------------|----|----|----|----|----|-----------|-----------|--------------|--------------------------|----------------|------------------|
| 2 | (UK/UEAP-WSS-<br>KU/01 Lot 2)<br>Bageshwar    | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula | Kasmirial<br>Construction Pvt.<br>Ltd. | Yes | Yes  | Satisfactory   | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house<br>arranged | Satisfactory   | Not required now |
| 3 | (UK/UEAP-WSS-<br>KU/01 Lot 3)<br>Dharchula    | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. at Kapkot, Bageshwar & Dharchula | Kasmirial<br>Construction Pvt.<br>Ltd. | Yes | Yes  | Satisfactory   | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house<br>arranged | Satisfactory   | Not required now |
| 4 | (UK/UEAP-WSS-<br>GW/01- Lot 1)<br>Rudraprayag | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.                                  | R. K. Engineers<br>Sales Ltd.          | Yes | Yes. | Satisfactory   | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house<br>arranged | Satisfactory   | Not required now |
| 5 | (UK/UEAP-WSS-<br>GW/01- Lot 2)<br>Kamprayag   | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.                                  | R. K. Engineers<br>Sales Ltd.          | Yes | Yes. | Satisfactory   | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house<br>arranged | Satisfactory.  | Not required now |
| 6 | UK/UEAP-WSS-<br>GW/01- Lot 3)<br>Gauchar      | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc. (                                | R. K. Engineers<br>Sales Ltd.          | Yes | Yes. | Satisfactory - | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house<br>arranged | Satisfactory - | Not required now |

|    |                                       |   |                                   |     |      |              |                                |    |    |    |    |           |           |              |                       |              |                  |
|----|---------------------------------------|---|-----------------------------------|-----|------|--------------|--------------------------------|----|----|----|----|-----------|-----------|--------------|-----------------------|--------------|------------------|
| 7  | (UK/UEAP-WSS-GW/01- Lot 4) Uttarkashi | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.  | R. K. Engineers Sales Ltd.        | Yes | Yes. | Satisfactory | NR                             | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Not required now |
| 8  | (UK/UEAP-WSS-GW/01- Lot 5) Deprayag   | Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains and Design, Supply, Construction and Commissioning of Infiltration Wells, WTP, GLSR etc.  |                                   | Yes | No   | Satisfactory | Tree Cutting NOC Under process | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Not required now |
| 9  | UK/UEAP-WSS-GW/02) Srinagar           | Construction of low level pump house, installation of raw water and clear water pumping machinery, Supply, Laying, Jointing, Testing and Commissioning of Water Transmission Mains, Rehabilitation of WTP's Design, Supply, Construction and Commissioning of Infiltration Wells, Construction of Sump and Electrical and Instrumentation works (   | R. K. Engineers Sales Ltd.        | Yes | Yes  | Satisfactory | NR                             | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Not required now |
| 10 | UK/UEAP-WSS-GW/02-01) Srinagar        | Design and Construction of Tube Wells bore well, performance (yield) test, design, supply and installation of Mechanical equipment to suit yield test results (single stage pumping), testing, commissioning, laying of required lengths of pipe line up to termination / destination points, as per site requirements, Construction of Pump houses, chamber, Construction of Boundary Walls, operation and maintenance of tube wells for a period of 1 year and allied works in Srinagar | Uttaranchal Tubewell Construction | Yes | Yes  | Satisfactory | NR                             | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Not required now |

|  |   |  |                                 |     |     |              |    |    |    |    |    |           |           |              |                       |              |                  |
|--|---|--|---------------------------------|-----|-----|--------------|----|----|----|----|----|-----------|-----------|--------------|-----------------------|--------------|------------------|
|  | UK/UEAP-WSS/UJS-<br>GW/02-02 Srinagar               | Replacement of connection pipes for proper piping arrangement from water mains to consumer household upto the AMR meter and installation of AMR meter for proper consumer connections including remote reading of volumetric water consumptions at Srinagar. | RG AQUAFIL (JV)                 | Yes | Yes | Satisfactory | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Satisfactory     |
|  | UK/UEAP-WSS/UJS-KU/01-<br>01 Kapkot II (Tank & pipe | Additional works of GLSRs 2 nos and distribution network at Kapkot   | Kasmirial Construction Pvt. Ltd | Yes | Yes | Satisfactory | NR | NR | NR | NR | NR | Submitted | Nominated | Satisfactory | Rented house arranged | Satisfactory | Not required now |

**ANNEXURE 4: Public Consultations done during (January to June, 2017)**

**DURING CONSTRUCTION/ IMPLEMENTATION**

| <b>Sr</b> | <b>Location</b>                | <b>Pkg No</b>            | <b>Date of consultation</b> | <b>Number of People</b> |
|-----------|--------------------------------|--------------------------|-----------------------------|-------------------------|
| <b>1</b>  | <b>2</b>                       | <b>3</b>                 | <b>4</b>                    | <b>5</b>                |
| 1         | <b>Uttarkashi</b>              | UK/UEAP-WSS-GW/01- Lot 4 | 17.01.17                    | 21                      |
| 2         | <b>Gauchar</b>                 | UK/UEAP-WSS-GW/01- Lot 3 | 18.01.17                    | 17                      |
| 3         | <b>Devprayag</b>               | UK/UEAP-WSS-GW/01- Lot 5 | 19.01.17                    | 8                       |
| 4         | <b>Rudraprayag</b>             | UK/UEAP-WSS-GW/01- Lot 1 | 19.01.17                    | 8                       |
| 5         | <b>Karanprayag</b>             | UK/UEAP-WSS-GW/01- Lot 2 | 19.01.17                    | 15                      |
| 6         | <b>Srinagar</b>                | UK/UEAP-WSS-GW/02        | 19.01.17                    | 10                      |
| 7         | <b>Srinagar AMR meter work</b> | UK/UEAP-WSS/UJS-GW/02-02 | 15.06.17                    | 16                      |



## Annexure 5: Grievance Redressal Cell

परियोजना प्रबन्धन ईकाई  
उत्तराखण्ड डिजास्टर रिकवरी प्रोजेक्ट एवं  
उत्तराखण्ड इमरजेन्सी असिस्टेंस प्रोजेक्ट  
सिडकुल बिल्डिंग 29 आई.आई.ई. (आई.टी. पार्क) सहस्त्रधारा रोड  
देहरादून-248001 उत्तराखण्ड

आपदा राहत एवं पुनर्वास के अन्तर्गत आवास, सड़क, पुल दुर्गम क्षेत्रों के लिये हेलीपैड, चिह्नित क्षतिग्रस्त सरकारी भवनों, पर्यटन विभाग की परिसम्पत्तियों, बहुउद्देशीय भवनों एवं एफ.आर.पी. हट्स बनाये जा रहे हैं। उपरोक्त से संबंधित किसी भी समस्या के निवारण के लिये परियोजना प्रबन्धन ईकाई एवं जनपद स्तर पर समस्या निवारण प्रकोष्ठ गठित किये गये हैं, जिनके संपर्क सूत्र निम्नवत हैं—  
इन संपर्क सूत्रों पर कार्यालय दिवसों एवं कार्यालय समयावधि में संपर्क किया जा सकता है।

केन्द्रीय समस्या निवारण प्रकोष्ठ दूरभाष संख्या 0135-2708376,  
परियोजना प्रबन्धन ईकाई देहरादून ई मेल-grievancepmu@gmail.com

| जनपद          | नोडल अधिकारी                  | दूरभाष संख्या            |
|---------------|-------------------------------|--------------------------|
| रूद्रप्रयाग   | श्री आशीष सेमवाल / राहुल जीयर | 8859504022 / 8859504026  |
| चमोली         | श्री नन्द किशोर जोशी          | 9411352136               |
| उत्तरकाशी     | श्री देवेन्द्र पटवाल          | 9410350338               |
| बागेश्वर      | कु. रिया सगूरी                | 8193917518               |
| पिथौरागढ़     | श्री आर. एच. राणा             | 9412079945               |
| अल्मोड़ा      | श्री राकेश जोशी               | 9412929707               |
| चम्पावत       | श्री मनोज पाण्डे              | 9412347265               |
| नैनीताल       | श्री शैलेश कुमार              | 9456523808               |
| उद्यमसिंह नगर | श्री अनिल शर्मा               | 7417170470               |
| टिहरी         | श्री ब्रिजेश भट्ट             | —                        |
| हरिद्वार      | —                             | —                        |
| देहरादून      | सुश्री दीपशिखा रावत           | 9412964936, 0135-2710334 |
| पौड़ी         | श्री हविवुर रहमान             | 9412031195               |



## ANNEXURE 6: Sample Grievance Registration Form

(To be available in Hindi and English or local language, if any)

The **Uttarakhand Emergency Assistance Project (UEAP)** welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing \*(CONFIDENTIAL)\* above your name. Thank you.

|  |  |                              |                              |            |  |
|--|--|------------------------------|------------------------------|------------|--|
| <b>Date</b>  |  | <b>Place of registration</b> |                              |            |  |
| <b>Contact Information/Personal Details</b>  |  |                              |                              |            |  |
| <b>Name</b>  |  | <b>Gender</b>                | <b>Male</b><br><b>Female</b> | <b>Age</b> |  |
| <b>Home Address</b>  |  |                              |                              |            |  |
| <b>Village / Town</b>  |  |                              |                              |            |  |
| <b>District</b>  |  |                              |                              |            |  |
| <b>Phone no.</b>   |  |                              |                              |            |  |
| <b>E-mail</b>  |  |                              |                              |            |  |
| <b>Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:</b><br><b>If included as attachment/note/letter, please tick here:</b> |  |                              |                              |            |  |
| <b>How do you want us to reach you for feedback or update on your comment/grievance?</b>   |  |                              |                              |            |  |

### FOR OFFICIAL USE ONLY

|   |   |
|---|---|
| <b>Registered by: (Name of official registering grievance)</b>  |   |
| <b>If – then mode:</b> <ul style="list-style-type: none"> <li>• Note/Letter</li> <li>• E-mail</li> <li>• Verbal/Telephonic</li> </ul> |   |
| <b>Reviewed by: (Names/Positions of Official(s) reviewing grievance)</b>  |   |
| <b>Action Taken:</b>  |   |
| <b>Whether Action Taken Disclosed:</b>  | <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> |
| <b>Means of Disclosure:</b>   |   |

### GRIVENCES RECORD AND ACTION TAKEN

| Sr. No. | Date | Name and Contact No. of Complainer | Type of Complain | Place | Status of Redress | Remarks |
|---------|------|------------------------------------|------------------|-------|-------------------|---------|
|         |      |                                    |                  |       |                   |         |
|         |      |                                    |                  |       |                   |         |

## परिशिष्ट 7: नमूना शिकायत पंजीकरण फार्म

(हिंदी, उर्दू और अंग्रेजी या स्थानीय भाषा में उपलब्ध हो, यदि कोई हो, )

UEAP शिकायतें, सुझाव, प्रश्नों और परियोजना के कार्यान्वयन के बारे में टिप्पणियों का स्वागत करता है<sup>1</sup> हम लोगों को शिकायत के साथ उनके नाम और संपर्क जानकारी प्रदान करने के लिए प्रोत्साहित करते हैं ताकि हम स्पष्टीकरण और प्रतिक्रिया के लिए आप के साथ संपर्क कर सकें 1

आपको अपने व्यक्तिगत विवरण शामिल करने चाहिए लेकिन उस जानकारी को गोपनीय रखा जायगा<sup>1</sup> आपका नाम ऊपर (गोपनीय) \* लेखन / टाइपिंग द्वारा हमें सूचित करें धन्यवाद

|   |  |      |                  |     |  |
|---|--|------|------------------|-----|--|
| तारीख   |  |      | पंजीकरण का स्थान |     |  |
| संपर्क करने संबंधी जानकारी / व्यक्तिगत विवरण  |  |      |                  |     |  |
| नाम   |  | लिंग | पुरुष<br>महिला   | आयु |  |
| घर का पता   |  |      |                  |     |  |
| गांव / शहर  |  |      |                  |     |  |
| जनपद  |  |      |                  |     |  |
| फोन नं.   |  |      |                  |     |  |
| ई मेल   |  |      |                  |     |  |
| शिकायत / सुझाव / टिप्पणी / प्रश्न नीचे अपनी शिकायत का विवरण (जो, क्या, कहां और कैसे) प्रदान करें: |  |      |                  |     |  |
| सलगनक / नोट / पत्र के रूप में, शामिल हैं, कृपया यहाँ टिक करें                                     |  |      |                  |     |  |
| हम आप तक प्रतिक्रिया के लिए कैसे पहुँच सकते हैं या अपनी टिप्पणी / शिकायत पर नवीनीकरण?             |  |      |                  |     |  |

केवल कार्यालय उपयोग के लिए

|  |       |  |                     |   |                     |            |
|--|-------|--|---------------------|---|---------------------|------------|
| द्वारा पंजीकृत: (सरकारी पंजीकरण शिकायत का नाम)   |       |  |                     |   |                     |            |
| यदि -फिर विधि:   |       |  |                     |   |                     |            |
| <ul style="list-style-type: none"> <li>• नोट / पत्र</li> <li>• ई मेल</li> <li>• मौखिक / टेलीफोन</li> </ul> |       |  |                     |   |                     |            |
| से समीक्षित: (नाम / अधिकारी की पोजिशन समीक्षा शिकायत)  |       |  |                     |   |                     |            |
| की गई कार्रवाई:  |       |  |                     |   |                     |            |
| की गई कार्रवाई का खुलासा:  |       |  |                     | <ul style="list-style-type: none"> <li>• हां</li> <li>• नहीं</li> </ul> |                     |            |
| प्रकटीकरण का मतलब:   |       |  |                     |   |                     |            |
| शिकायत<br>रिकॉर्ड और की<br>गई कार्रवाई<br>क्रम संख्या  | तारीख | नाम और<br>complainer का<br>संपर्क नंबर | शिकायत के<br>प्रकार | जगह   | निवारण की<br>स्थिति | टिप्पणियाँ |
|  |       |  |                     |   |                     |            |



# Annexure -8: PUBLIC CONSULTATION RECORD

## List of Participants - Public Consultation & Focused Group Discussions

Name of the Sub-Project : Uttarakhand Emergency Assistance Project:  
Water Supply Sector, Uttarkashi  
Number of Participants : 21  
Name of the District : Uttarkashi  
Date : 17/01/2017

PUBLIC CONSULTATION AT - Uttarkashi (UEAP Water Supply Project)  
Date- 17.01.2017

| SL No. | Name of the person consulted | Signature | Phone no.  |
|--------|------------------------------|-----------|------------|
| 1      | K. C. Ramola G.M.V.N         |           | 9997258202 |
| 2      | Gopal Singh Rana G.M.V.N     |           | 9568504112 |
| 3      | Ram Bhagwan                  |           | 9997180425 |
| 4      | Chandern Chandra             |           | 957595561  |
| 5      | Sachin                       |           | 9557607917 |
| 6      | Narendra Kumar Gang          |           | 9410354023 |
| 7      | Rita Gang Tiloth             |           | "          |
| 8      | Sunila Tiloth                |           |            |
| 9      | Gopal Singh Gansari "        |           |            |
| 10     | Kailash sing Gansari "       |           |            |
| 11     | Mulayam Singh "              |           | 9639546048 |
| 12     | Man Singh                    |           | 9456769031 |
| 13     | Ganesh Kumar                 |           | 9410172738 |
| 14     | Nathi Singh Panwar           |           |            |
| 15     | Balwant Chandra Garg         |           | 9897682652 |
| 16     | Gokul Garg                   |           |            |
| 17     | Rupak Singh Rana Garg        |           | 9012059130 |
| 18     | Preman Singh Garg            |           | 9412919586 |
| 19     | SIVKAR SINGH RANAR           |           | 9456312860 |
| 20     | Prakash                      |           | 8126409599 |

21.   
दीपक सिंह जी  
उत्तराखण्ड

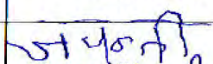
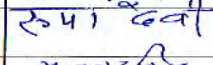
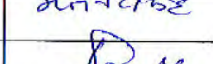
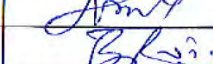
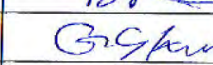
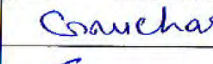
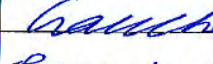
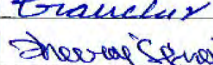
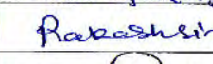
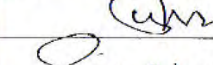
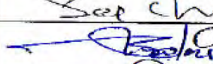
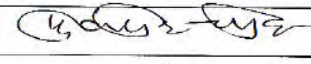
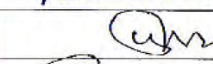
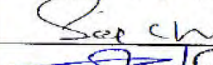
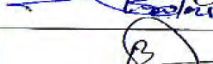
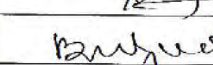


दीपक  
9627119223

Name of the Sub-Project : Uttarakhand Emergency Assistance Project:  
Water Supply Sector, Gauchar  
Number of Participants : 17  
Name of the District : Chamoli  
Date : 18/01/2017

# UEAP (Water Supply Project)

**BUBLIC CONSULTATION AT -**  
**Date- 18.01.2017.**

Gauchar town.

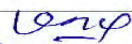



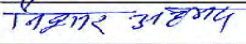
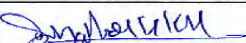

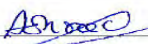
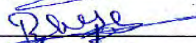
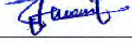

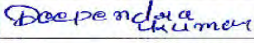
| SL No. | Name of the person consulted  | Signature  | Phone no.  |
|--------|---|--|------------|
| 1      | Jayanti Rana.   |    | —          |
| 2      | Rupa Devi   |    | —          |
| 3      | Manoj Kumar   |    | 8057545282 |
| 4      | Original Bishu  |    | 9897214377 |
| 5      | Arvind Kumar  |    | 9412960821 |
| 6      | Sit-Singh   |    | 9410323760 |
| 7      | Ravendra Singh  |   | 9410722654 |
| 8      | Kailash   |  | 9917251352 |
| 9      | Ashish mukherji   |  | 8126924177 |
| 10     | Dhiraj Singh,   |  | 7055112225 |
| 11     | Rakesh Singh  |  | 8979165949 |
| 12     |  |  | 9801175222 |
| 13     | Sachin N Semwal   |  | 735141414  |
| 14     | Ravindra Singh Yadav  |  | 988479463  |
| 15     | अशोक 2112   |  | 7310522144 |
| 16     | Balwant Singh   |  | 8755362641 |
| 17     | देवी देवी नोसि  |  | 7012028429 |
| 18     |   |  |            |
| 19     |   |  |            |
| 20     |   |  |            |





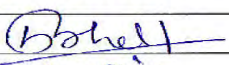
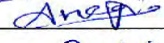

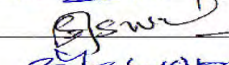
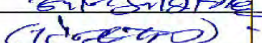
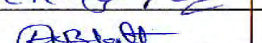
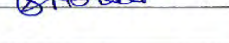
**Name of the Sub-Project** : Uttarakhand Emergency Assistance Project:  
Water Supply Sector, Karanprayag  
**Number of Participants** : 13+2  
**Name of the District** : Chamoli  
**Date** : 19/01/2017

**BUBLIC CONSULTATION AT -** Karnaprayag  
**Date-** 19.01.2017.

| SL No. | Name of the person consulted | Signature  | Phone no.   |
|--------|------------------------------|--|-------------|
| 1      | VISAY KHANDURI               |    | 9760319797  |
| 2      | Pranod Nautiyal              |    | 7580710089  |
| 3      | Himmat Singh                 |    | 75879121589 |
| 4      | Naveen Nawani                |    | 9897764777  |
| 5      | Neshar Ahmed                 |    |             |
| 6      | Shahruxh                     |    | 8102857912  |
| 7      | Mustaq Ahmed                 |    |             |
| 8      | Wazir Ahmed                  |  |             |
| 9      | Ashraf Khan                  |    | 9760681564  |
| 10     | Pradeep Singh                |    |             |
| 11     | Hemant Negi                  |    | 9997001505  |
| 12     | Vikas Singh                  |    | 7830566694  |
| 13     | Dipendra Kumar               |  | 9927639664  |
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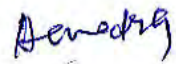







Name of the Sub-Project : Uttarakhand Emergency Assistance Project:  
 , Srinagar  
 Number of Participants : 10+2  
 Name of the District : Pauri  
 Date : 19/01/2017

BUBLIC CONSULTATION AT - Srinagar town  
 Date- 19.01.2017

| SL No. | Name of the person consulted | Signature   | Phone no.   |
|--------|------------------------------|---|-------------|
| 1      | Nitya Nand Bhatt             |   | 7533939950  |
| 2      | ASHOK                        |   |             |
| 3      | Ravi                         | Ravi  | 9568005448  |
| 4      | Sachin                       | Sachin  |             |
| 5      | Digambar                     |   | 8126021827  |
| 6      | Anita                        | Anita   |             |
| 7      | Sarob Singh Aswal            |   | 01346253494 |
| 8      | Om parkash Bhatt             |   | 2585        |
| 9      | Satendar Singh Bist          |   |             |
| 10     | Kasav Nand Bhatt             |  | 9412341272  |
|        |                              |   |             |
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**Name of the Sub-Project** : Uttarakhand Emergency Assistance Project:  
Water Supply Sector, Devprayag  
**Number of Participants** : 8+2  
**Name of the District** : Devprayag  
**Date** : 19/01/2017

PUBLIC CONSULTATION at Devprayag  
Date:- 19.01.2017.

| S.No | Name  | Sign  |
|------|---|---|
| 1 →  | Sanjay Bhatt                                    |    |
| 2 →  | Anuj Bhatt                                      |    |
| 3 →  | Maychand Singh Rawat<br>(Gaper shabha Adhyaksh) |   |
| 4 →  | Sanjay Bhatt                                    |   |
| 5 →  | Durgesh Panchpuri                               |  |
| 6 →  | Rinko JANGRA                                    |  |
| 7 -  | Rishu Dm  |   |
| 8 -  | mukesh Tripathi                                 |   |



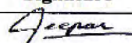
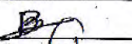
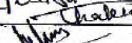
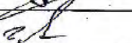
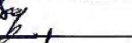
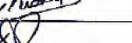
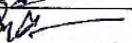




Name of the Sub-Project : Uttarakhand Emergency Assistance Project:  
AMR meter, Srinagar  
Number of Participants : 16  
Name of the District : Pauri  
Date : 15/06/17

CONDUCTED BY: Dr. Nutan Gupta, Env. Consultant, PMU, UEAP

| S. No. | NAME                  | ADDRESS                          | CONTACT NO. | SIGN                  |
|--------|-----------------------|----------------------------------|-------------|-----------------------|
| 1      | श्रीमती देवीदास       | श्रीमती देवीदास, श्रीमती देवीदास | 9412965946  | श्रीमती देवीदास       |
| 2      | श्रीमती देवीदास       | —                                | 9654967729  | श्रीमती देवीदास       |
| 3      | श्रीमती देवीदास       | —                                | 9568010415  | श्रीमती देवीदास       |
| 4      | Pinish Jural          | site engg.                       | 7895799040  | Pinish Jural          |
| 5      | S. P. Charnot         | Lower Bhakthi                    | 97579259764 | S. P. Charnot         |
| 6      | Raghu Kuri            | site engg.                       | 8755241155  | Raghu Kuri            |
| 7      | Nutan Gupta           | Env. Consultant                  | 9412153082  | Nutan Gupta           |
| 8      | Aparna                | Social Expert (SCOE)             | 9158101693  | Aparna                |
| 9      | Sohan Singh Bhatnagar | P. V. Field, WSS                 | 9412916592  | Sohan Singh Bhatnagar |
| 10     | B. C. Bhatt           | DSC Staff                        | 2060208479  | B. C. Bhatt           |
| 11     | Manju Devi            | Dang Srinagar                    | 8650345365  | Manju Devi            |
| 12     | श्रीमती देवीदास       | श्रीमती देवीदास                  | 9997809623  | श्रीमती देवीदास       |
| 13     | Vijay Lal             | श्रीमती देवीदास                  | 9634020800  | Vijay Lal             |
| 14     | Pitambar              | Kandharu                         | 8954051866  | Pitambar              |
| 15     | Anash Anje            | Hotel Rayans                     | 9412079992  | Anash Anje            |
| 16     | Indra Kumar           | Matruka Hotel                    | 8006954940  | Indra Kumar           |
| 17     |                       |                                  |             |                       |

| <p align="center"><b>UTTARAKHAND EMERGENCY ASSISTANCE PROJECT</b><br/> <b>(URBAN WATER SUPPLY SUB- PROJECT)</b><br/> <b>Funded By Asian Development Bank (ADB LOAN NO. 3055- IND)</b><br/> <b>TRAINING ON</b><br/> <b>CAPACITY BUILDING FOR IMPLEMENTATION OF ENVIRONMENTAL &amp; SOCIAL SAFEGUARDS IN PROJECTS</b><br/> <b>Organized by</b><br/> <b>PROJECT IMPLEMENTATION UNIT, UTTARAKAND JAL SANSTHAN DEHRADUN</b><br/> <b>STUP CONSULTANTS PVT. LTD. DSC, UEAP, DEHRADUN</b><br/> <b>VENUE: Conference Hall, Uttarakand Jal Sansthan, Dehradun</b><br/> <b>DATE: JANUARY 21, 2017</b></p> |                       |                                   |             |                |
|--|-----------------------|-----------------------------------|-------------|----------------|
| <b>Registration Sheet</b>  |                       |                                   |             |                |
| Sl No.   | Name                  | Designation with Address          | Contact No. | Signature      |
| 1  | Neehima Garg          | GM UJS                            | 941110575   |                |
| 2  | Dr. Nutan Gupta       | Env. Consultant, PMU              | 9412153087  | Nutan Gupta    |
| 3  | Hitesh Joshi          | IT MIS EXPERT PMU                 | 9887036666  | Hitesh         |
| 4  | Dr. Ashish Anand      | ERS - PMU                         | 9456765725  | Ashish         |
| 5  | P. C. Krishna Murthy  | SECS PIV Urban                    | 9412058625  |                |
| 6  | Ashish Nigri          | DPM-PIV-UEAP                      | 9897934726  |                |
| 7  | Rajeev Saini          | A.E. Jal Sanst. Pann              | 9897598019  |                |
| 8  | BILAL YUNUS           | E.E. UJS, DDHAT                   | 9458993180  | Bilal Yunus    |
| 9  | Jyoti Kotharia        | AAE UJS Dehradun                  | 9410724301  | Jyoti          |
| 10   | Bhuvan Chandra Bhatt  | C.S. Dehradun                     | 7060208478  | Bhuvan         |
| 11   | Bhaskar Singh Bisht   | D.S. Dharchula                    | 7573016380  | Bhaskar        |
| 12   | Gouram Sengupta       | C.S. Karanprag                    | 7060208479  | Gouram         |
| 13   | Manendra Singh Rana   | C.S. Uttarakhand                  | 7060208481  | Manendra       |
| 14   | Dilip Ch. Gupta       | C.S., Garimara                    | 7060208480  | Dilip          |
| 15   | Anurag Singh          | C.S. Bageshwar                    | 7060208482  | Anurag         |
| 16   | Parveen Saini         | E.E. UJS Pann                     | 8755052352  | Parveen        |
| 17   | R.K. Rohela           | S.E. UJS Pann                     | 941113824   | R.K. Rohela    |
| 18   | Jamil Ahmad           | W.S.S. officiating TL Dsc         | 9927664786  | Jamil          |
| 19   | N.M. Malan            | Uttarakhand Tubewell Constn (JIV) | 9410333432  | N.M. Malan     |
| 20   | Rakesh Sharma         | R.K. Engineers Ltd                | 9411402441  | Rakesh         |
| 21   | S.K. Choudhary        | K.C.P.L. Ranikhet                 | 9359434205  | S.K. Choudhary |
| 22   | Mayank Sah (ESO)      | K.C.P.L. Ranikhet                 | 9456321523  | Mayank Sah     |
| 23   | Birender Bafila ESO   | R.K. Engineers Subs Ltd           | 7705804595  | Birender       |
| 24   | PREMA DHYANI          | IEC EXPERT                        | 7060927030  | PREMA          |
| 25   | Chandna Shokhan Joshi | K.C.P.L. Dharchula                | 9410793622  | Chandna        |



| <p align="center"><b>UTTARAKHAND EMERGENCY ASSISTANCE PROJECT</b><br/> <b>(URBAN WATER SUPPLY SUB- PROJECT)</b><br/> <b>Funded By Asian Development Bank (ADB LOAN NO. 3055- IND)</b><br/> <b>TRAINING ON</b><br/> <b>CAPACITY BUILDING FOR IMPLEMENTATION OF ENVIRONMENTAL &amp; SOCIAL SAFEGUARDS IN PROJECTS</b><br/> <b>Organized by</b><br/> <b>PROJECT IMPLEMENTATION UNIT, UTTARAKHAND JAL SANSTHAN DEHRADUN</b><br/> <b>STUP CONSULTANTS PVT. LTD, DSC, UEAP, DEHRADUN</b><br/> <b>VENUE: Conference Hall, Uttarakhand Jal Sansthan, Dehradun</b><br/> <b>DATE: JANUARY 21, 2017</b></p> |                        |                               |             |  |
|--|------------------------|-------------------------------|-------------|--|
| Sl No.   | Name                   | Designation with Address      | Contact No. | Signature  |
| 26   | Deepak Mehra           | ICPL, Dehradun                | 9937626112  |   |
| 27   | BHARAT BHUSHAN         | R.K Engineers Lucknow         | 9410704861  |   |
| 28   | Munish Bhatnagar       | Site Engg. R.K. Gauchat       | 84758-46700 |   |
| 29   | Vipin Chakraborty      | AE Jal Sansthan Kanpur        | 8477033013  |   |
| 30   | Sanjay Singh           | AE Jal Sansthan Kanpur        | 9412916597  |   |
| 31   | Sanjay Singh           | AE Jal Sansthan Kanpur        | 7895652526  |   |
| 32   | Anand Singh Munshi     | J.E. U.T.S. Bidlihat          | 7351703933  |   |
| 33   | Anand Singh Munshi     | J.E. STUP DSC                 | 7060208484  |   |
| 34   | Kamal Bhatnagar        | AAE U.T.S. Bidlihat           | 9410534028  |   |
| 35   | Dinesh Kumar           | DSC - DM                      | 7060208477  |   |
| 36   | Dr. Samrat K. Banerjee | Env. Expert DSC, UEAP, U.T.S. | 9831291734  |  |
| 37   |                        |                               |             |  |
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## ANNEXURE 9: PUBLIC CONSULTATION PHOTOGRAPHS



**Uttarkashi**



**Devprayag**

**Rudraprayag**



**Gauchar**





Karanprayag



Srinagar (AMR metering works)

## Annexure -10

### PHOTOGRAPHS OF ENVIRONMENTAL MONITORING (Jan.- June, 17) AT KAPKOT AND RUDRAPRAYAG





## ANNEXURE 11: PHOTOGRAPHIC ILLUSTRATION OF INFORMATION BOARDS AT WORK SITES



## ANNEXURE 12: PHOTOGRAPHIC ILLUSTRATION OF EMP IMPLEMENTATION AT WORK SITES



Srinagar



Kaleshwar (Karanprayag)



Uttarkashi



Bageshwar

Labours using PPEs during work





Bageshwar



Karanprayag

### OSHA training to labourers on site



Fire safety arrangements at Bageshwar



Barricading and warning sign board being used, in AMR metering works at Srinagar



Capacity Building Training for PIU, F-PIU and Contractors on 21.01.17

## ANNEXURE 13: PHOTOGRAPHS OF PROGRESS OF WORK



Infiltration well, Bageshwar



Alum Godown, Bageshwar



Infiltration well, Kapkot



Excavation work in progress at Kakpot II



Dharchula 300KL GLSR



Devprayag 50KL GLSR





500KL sump, Srinagar



1000KL GLSR, Srinagar



Pump house at RBF site, Srinagar



Raw water pump house, Srinagar



Clear water pump house, Srinagar



SCADA system, Srinagar



Tubewell at RBF site, Srinagar



AMR meter work in progress, Srinagar



AMR survey, Srinagar



Office Building, Rudraprayag



Pump House, Gauchar





Office Building, Gauchar (Karanprayag)



Infiltration well, Gauchar (Karanprayag)



100KL, GLSR Gauchar (Karanprayag)



Pump house, Uttarkashi