# 2. SALIENT FEATURES

The salient features of Kharawa (Bhimdasa) SHP

**SALIENT FEATURES**

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| **2.1 Location** | | |
| UT | : | Jammu & Kashmir |
| District | : | Ramban |
| Tehsil | : | Ramban |
| Village | : | Bhimdasa |
| Access distance from | : | |
| Srinagar | : | 188 km |
| Jammu | : | 172 km |
| Nearest Road Head | | Ramban 49 Km |
| Nearest Rail Head | : | Banihal – 96.2 km |
| 2.2 **Geographical Co-ordinate of proposed Diversion Site** | | |
| Longitude | : | 75° 2'36.60"E |
| Latitude | : | 33°18'40.95"N |
| Altitude | : | ± 1865 m |
| 2.3 **Details of the Stream** | | |
| Name of the stream | : | Basra |
| Catchment area at diversion | : | 40 Sq. Km. |
| Existing water use of the stream in nearby area | : | Nil |
| Approximate slope of the stream in the proposed stretch. | : | 1 in 7 |
| Status of the stream snow / glacier / rain fed | : | Glacier, snow, and rain fed |

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| **2.4** | **Meteorological Information** | | |
| | Annual Rainfall | : | 1330 mm |
| | Temperature | : | Min. -10°C, Max 28°C |
| 2.5 | **Availability of Labour** | | |
| | Availability of Labour in nearby area | | |
| | (i) Skilled | : | Available in District Ramban. |
| | (ii) Unskilled | : | Available near project site |
| **2.6** | **Availability of Building Materials** | | |
| | (i) Boulders | : | Available locally |
| | (ii) Stones for stone masonry | : | Available locally |
| | (iii) Fine sand | : | Available locally |
| | (iv) Cement | : | Available in District Ramban. |
| | (v) Reinforcement steel | : | Available in District Ramban. |
| 2.7 | **Preliminary Technical Parameters** | | |
| | **Basic parameters** | | |
| | Gross Head | : | 190 m |
| | Design discharge | : | 1.44 $m^3/s$ |
| | Installed Capacity | : | 2.20 MW |
| | **Diversion structure & intake** | | |
| | Type | : | Trench Weir |
| | RBL | | 1865.0 m |
| | FRL | | 1865.0 m |
| | Design discharge for Intake structure | : | 2.09 cumec |
| | Size | : | Trench Width: 1.0 m<br>Depth: 1.5 m |

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| Length | : | 25 m |
| **Intake Channel upto Desilting Chamber** | | |
| Type | : | Surface Cut & Cover |
| Length | : | 135 m |
| Design Discharge in Pipe | : | 1.90 cumec |
| Size | : | Width: 1.5 m<br>Depth: 1.5 m |
| **Desilting chamber** | | |
| Design Criteria | : | To remove silt particles of size 0.2 mm and above |
| Flushing Arrangement | : | Sloping bed, sluice valve at the bottom |
| Design Discharge | | 2.07 cumec |
| No. of bays | : | 1 |
| Size L x W x H | : | 28 m, 5 m, and 5 m |
| **Power Channel cum Energy Dissipation Arrangement** | | |
| Design Discharge | : | 1.44 cumec |
| Width | : | 1.5 m |
| Depth of flow | : | 1.5 m |
| Length | : | 1809 m |
| **Forebay Tank** | | |
| Design discharge | : | 1.44 cumec |
| Length | : | 20.0 m |
| Width | : | 3.0 m |
| Depth | : | 6.0 m |
| Free Board | : | 0.30 m |
| Type | : | Rectangular RCC |
| Approximate Detention Time | : | 3 minutes |

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| Capacity Provided | : | 341.4 $m^3$ |
| **Penstock** | | |
| Design discharge | | 1.44 Cumec |
| Diameter | : | 1.0 m |
| Length | : | 280 m |
| Design discharge of Unit Penstock | | 0.72 Cumec |
| Diameter of Unit Penstock | | 0.50 m |
| Type | : | Circular (ASTM 285 Grade “C”) |
| Thickness | : | Varies from 12 mm to 24 mm. |
| Anchors and Saddle Supports | : | After every 6m, there is proposed to have saddle support and Anchor Bock after every 100m or at every horizontal/Vertical Bends |
| **Power House** | | |
| Longitude | | 75° 3'6.94"E |
| Latitude | | 33°18'4.01"N |
| EL. | | 1675 m |
| Type | : | Surface |
| Size of the Power House building | : | L = 30.0 m<br>W = 25.0 m<br>H = 16.0 m |
| Service Bay Elevation | : | EL. 1677 m |
| Centre Line of turbine | : | EL. 1675 m |
| Installed Capacity | : | 2.0MW |
| No. and capacity of unit | : | 2 x 1.0MW |
| Type of Turbine | : | Francis Horizontal |
| Gross Head | : | 190 m |
| Net Head | : | 180.5 m |

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| Power House Crane | : | 40/10 T EOT |
| Tail Water Level (TWL) | : | 1673 m |
| **Tail Race** | | |
| Design discharge | | 1.44 Cumec |
| Shape | : | RCC Box Rectangular Section |
| Size | : | 1.2 m (Wide) x 1.2 m (High) |
| Bed Slope | : | 1 in 500 |
| Length | : | 63 m |
| **Power Details** | | |
| Installed Capacity | : | 2.0MW |
| Annual Energy at 90% plant availability | : | 8.96 MU |
| Plant Load Factor | : | 46.48 % |

## 2.8 Estimated Cost of Project

**App. 25 Crore INR**