Land Acquisition and Involuntary Resettlement Due Diligence Report

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India: Himachal Pradesh Rural Drinking Water Improvement and Livelihood Project

Package No: MZ01 (Mandi Zone Package-3 Kullu)

Prepared by Jal Shakti Vibhag, Government of Himachal Pradesh for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 10 November 2021)

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₹1.00 = \$0.0135 \$1.00 = ₹74.164

ABBREVIATIONS

ADB - Asian Development Bank

BBMB - Bhakra Beas Management Board

DDR - due diligence report
DPR - Detailed Project Report
EM - Entitlement Matrix

GoHP - Government of Himachal Pradesh

GP - Gram Panchayat

HPPWD - Himachal Pradesh Public Works Department IPH - Department of Irrigation and Public Health

JSV - Jal Shakti Vibhag JE - Junior Engineer

LWSS - Lift Water Supply Scheme MBR - Main Balancing Reservoir

NA - Not Available N/A - Not applicable

NOC - No objection certificate
NRW - Non-Revenue Water
PMU - Project Management Unit

PDMSC - Project Design, Management and Supervision Consultant

PIU - Project Implementation unit

RSF - Rapid Sand Filter

PWD - Public works department

ROW - right-of-way
SSF - slow sand filter
SR - service reservoir
WSS - water supply schemes
WTP - water treatment plant

WEIGHTS AND MEASURES

kl - kiloliter km - kilometer I - liter

LPCD - liter per capita per day

m - meter

MLD - million liters per day

mm - millimeter sqm/m² - square meter



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I. INTRODUCTION

A. Project Overview

- 1. The government of "Himachal Pradesh" has accorded top priority to the provision of safe drinking water to the rural areas of the state. The focus in the water supply sector is to cover every household with piped water supply. The existing old rural water supply schemes (commenced before year 2000) were designed to tap water from available local sources and many of them are small water supply schemes which cater few habitations or villages. With passage of time water demand increased due to increase in population and as a result, existing water supply schemes could not match the increased demand. The constant wear and tear, limited maintenance funds and unreliability of various small sources, made these systems more vulnerable. Therefore, Jal Shakti Vibhag (JSV), formerly known as Irrigation and Public Health (IPH) Department of Himachal Pradesh, wants these schemes to be re-modelled/renovated.
- 2. The Department of Irrigation & Public Health (IPH), Government of Himachal Pradesh (GoHP) was created in the year 1986 and is responsible for providing safe and wholesome water to the people of Himachal Pradesh. Since January 2020, IPH department is renamed as Jal Shakti Vibhag. The project cost for Rural Drinking Water Improvement will be funded by the Asian Development Bank (ADB) and Government of Himachal Pradesh (GoHP) in 80:20 proportion.
- 3. The project area comprises the rural regions of Himachal Pradesh. The rural water supply schemes of Himachal Pradesh are divided into four zones, namely Shimla, Hamirpur, Mandi and Dharamshala. The zones are divided into circles which get further divided into divisions and subdivisions. The grids are formed by integrating various small water supply schemes in these subdivisions according to the geographical continuity of the schemes.
- 4. At present the schemes are being operated at 40 LPCD with intermittent water supply to the consumers. The water flow largely remains unaccounted due to absence of any water flow monitoring and automation system. This has led to unequal water supply in different areas and inefficiency in the system. The key objectives of the assignment are as below to strengthen the existing network system and provide 100% rural house with piped water supply. (i) To identify reliable & sustainable drinking water source for preparation of schemes. (ii) Establish system for equitable distribution of water as currently some parts of the rural area receive more than 70 LPCD of water whereas some parts receive less than as 70 LPCD. (iii) To ensure all rural households have access to adequate quantity, quality & safe water. (iv) Potable drinking water which meets national drinking water standards, leading to healthy and well-nourished children and adults and improved livelihoods and education. (v) To reduce water borne diseases, water stress & non-revenue water (NRW). (iv) To ensure positive impact on social status and economic standard of the people of rural areas.
- 5. The proposed components in the project includes (i) Raw water intake facilities like Intake chambers, Head Weirs with sump wells, tube well, Raw Water Pumps; (ii) Water treatment plants with all appurtenances, civil & electro-mechanical works, including Chlorination sludge lagoons, (iii) Water transmission mains such as Rising mains, Gravity mains, Distribution mains; (iv) Clear water pumps to convey water from lower elevation to higher elevation where required (v) Water storage reservoirs such as MBRs, and SR's; (vi) House service connections with water meters; (vii) Automation is proposed at Sources, WTPs, Pump Houses, MBRs and SRs to bring efficiency in operation and maintenance. The real time quality and quantity of water supplied will be monitored through automation. The provision for solar panels has been considered to support the automation at remote locations; (viii) Operation and maintenance of the proposed components

for a period of five years after commissioning and takeover of the repairing of existing civil structures such as WTPs, pumping stations and reservoirs which are retained in the proposal.

B. Objectives and Scope of this Report

- 6. The proposed MZ01 (Mandi Zone Package 3) will not involve any involuntary resettlement impacts. The primary objective of this land acquisition and involuntary resettlement due diligence report is to confirm that the subproject is free of involuntary resettlement impact such as private land acquisition, physical displacement, economic displacement, adverse impact on livelihood, community properties or any other impacts based on the site visits, sample survey, land records and stakeholders consultations to the proposed subproject locations. This document describes the findings and provides copies of relevant documents, minutes of meetings and photographs.
- 7. This due diligence report covers the proposed subproject components that include (i) construction of sixteen (16) Water treatment Plants of various capacities from 35 KLD to 1500 KLD; (ii) Twelve (12) Pump houses; (iii) Sixteen (16) Main Balance Reservoirs of various capacities ranging from 20 KL to 95 KL; (iv) Seventy two (72) Service Reservoirs of various capacities from 20 KL to 235 KL; (v) house service connections (8,247 units); (vi) electrical and mechanical works; (vii) operation and maintenance of Water Supply system (for 5 years); (viii) Laying of approximately 450 km of water distribution supply pipeline; (ix) Three (3) diversion spurs; (x) Nineteen (19) RCC intake chambers; (xi) Four (4) tubewell intakes with pumps
- 8. Due diligence involved field visits, public consultation to inform the public/stakeholders on the subproject components and to ascertain if there are any potential involuntary resettlement impacts. Discussions with concerned government offices for land records, land ownership details and permission and approvals required for the use of land. This was followed by a limited site visits due to COVID-19 pandemic and travel/movement restrictions and protocols.
- 9. A sample survey of the critical areas was also conducted with the help of Google Earth images and site photographs to ascertain further if there are any potential involuntary resettlement impacts. Site visits, consultations and sample survey were conducted by the team comprising detailed project report (DPR) consultants, social safeguard consultant and staff from concerned project implementation units (PIUs).
- 10. This draft land acquisition and involuntary resettlement due diligence report (DDR) has been prepared by integrating all the details of the draft DPR, findings of the field visits, sample survey and discussions with relevant government officials and information gathered during public consultation which is aligned with ADB's safeguards requirements. The proposed works will not involve temporary or permanent involuntary resettlement impacts.

II. DESCRIPTION OF SUBPROJECT AREA

- 11. The subproject area i.e., District Kullu, MZ01, belongs to Mandi zone and consists of rural regions of Kullu district, Himachal Pradesh MZ01 (District Mandi Package 3) comes under Kullu Circle and comprises three (3) divisions viz. Kullu division-1, Kullu division-2 (Shamshi), &Anni divisions. These divisions are further divided into subdivisions. This package is an integration of six (6) grids, comprising of twenty-eight (28) small rural water supply schemes, as shown in figure 1.
- 12. The overall status of rural water supply schemes, population served in the commencing year 2022, and ultimate design year 2042 of MZ01 is shown in Table 1 below:

Table 1: Projected Population and Water Demand

Deelsone	Cahama	Grid				Villages	Habitation	Pop	ulation (N	los.)	Water Demand (KLD)		
Package	Scheme	ID	District	Circle	Division	(Nos.)	(Nos.)	2011	2022	2042	2011	2022	2042
	WSS Samalang in GP Mangarh WSS Mashana in Tehsil & Distt Kullu WSS -Gramang in GP Choparsa WSS Phallain in GP Phalan WSS DughilagShildhari	MK1	Kullu	Kullu	Division- 1, Kullu	5	17	2574	2934	3580	244.53	278.73	340.10
	WSS DharaGhot												
	WSS ChachogaMalahar					4	40	11584		16092	1100.48	1253.53	1528.74
	WSS KaisBishtbehar			Kullu	Division- 1, Kullu								
	WSS Soil Sor Kararsu WSS Seobag	MK2	Kullu						13195				
MZ01	WSS Sarach, Kolibehar, Badah&KhalyaniPadhar in Tehsil Bhunter, Distt. Kullu HP.	_											
	WSS NeenuJeshtain TehsilBhunter Distt. Kullu (H.P) WSS NarolGarsaDharain TehsilBhunter Distt. Kullu (H.P)	MK6	Kullu	Kullu	Shamshi	2	17	2061	2355	2865	195. 80	223.73	272.18
	WSS SarchiBandalArkhali Phagwara in Tehsil Banjar Distt. Kullu (H.P) WSS Seraj in Tehsil Banjar Distt. Kullu (H.P) WSS Thatibir, Targali&Manglore etc. in Tehsil Banjar Distt. Kullu (H.P)	MK7	Kullu	Kullu	Shamshi	5	66	5414	6193	7546	514.33	588.34	716.87
	WSS Khanag in G.P Khanagin Anni Block. WSS NagotPalli in G.P. Kohila in Anni Block.	MK9	Kullu	Kullu	Anni	5	111	6311	7236	8812	599.55	687.42	837.14

Package	Package Scheme		District Circle Divisio	Division	Division Villages Ha	Habitation	Population (Nos.)			Water Demand (KLD)			
Package	Scheme	ID	DISTRICT	Circle	DIVISION	(Nos.)	(Nos.)	2011	2022	2042	2011	2022	2042
	PWSS ParkotKamand in G.P. Kohila in Anni Block. PWSS KadviKafti in GP Buchchair In Ani Block PWSS KhunBandalJadar Chowki etc. in G.P. Khaniin Anni Block. PWSS. DugaShigan in GP												
	Deothi in Ani block. PWSS ShanuJaterh in G.P. Arsu in Nirmand Block. WSS Nirmand in NirmandBlock Distt. Kullu (H.P) WSS RemuKedas in Nirmand block Distt. Kullu (H.P) WSS Bail Dharopa in Nirmand Block WSS Koil in Nirmand block PWSS Chatti in G.P. Tunan in Nirmand block.	MK12	Kullu	Kullu	Anni	6	41	8122	9257	11292	771.59	879.42	1072.74
	TOTAL	(0000				27	292	32263	36842	44908	3064.99	3499.99	4266.26

Source: Population Source: Census 2011, (2022 & 2042 populations are projected)

13. As mentioned in the table above, MZ01 (District Mandi Package-3) is covering 27 villages and 292 habitations, having a population of 36,842 and 44,908 in 2022 and 2042 respectively. The water demand for 2022 and 2042 is ~3500 KLD and ~4266 KLD respectively. The geographical spreads of the six grids in MZ01 is shown below:

MK 1 Konk MK 2

Hurang geri

Separat S

Figure 1: Location of Project Area

Mandi Zone Package 3

Source: Google Earth

III. SUBPROJECT DESCRIPTION

A. Present status of Water Supply System in the Project Area

- 14. Presently the schemes are being operated at 40 LPCD with intermittent water supply to the consumers. Apart from piped water supply, consumers rely on local sources including springs, baories and nallahs for meeting the water demands. The water flow largely remains unaccounted due to absence of any water flow monitoring and automation system. This has led to unequal water supply in different areas and inefficiency in the system. The key objectives of the assignment are as below to strengthen the existing network system and provide 100% piped water supply to the households of the project area.
- 15. All the schemes were commissioned prior to year 2000. Most of the water supply infrastructure including water tanks, source intakes, pump houses and pipelines is in bad condition and needs replacement. The non-revenue water is estimated close to 30% in most of the schemes due to leakages and damages in tanks and pipelines.

B. Proposed Subproject Component

16. Details of newly proposed subproject components and of existing componentsproposed for rehabilitation are shown in the Table 2and 3 respectively:

Table 2: Newly Proposed Subproject Components

Grid No	Infrastructure	Description			
	Proposed Water Source	Proposed twelve (12) intake chambers at Roe Aage spring, Phalas spring, Thach nallah spring-1, at Thach Nallah spring-2, Chicham, Mashna nallah spring-1, Mashna nallah spring-2, Kala pani spring, Surgamani spring, Pawanag spring, Chhaya pani spring and Naya pani spring.			
MK-1 WTPs		Not Proposed			
	Pump houses	Nil			
	MBR	Construction of one MBR of capacity 20KL			
	SR	Construction of 10 Nos. of SRs (8*20KL, 40KL and 65KL)			
MK-2	Proposed Water Source	Proposed four 4 Borewells sources at Ieft bank of beas river opposite bandrol, Ieft bank of Beas River at seobag Bridge, Inear Village Badah Ikharu Gharat MohalKhad. Proposed two intake Chambers on Nallah Sources i.e., Khuad Nallah			
	WTPs	Construction of six WTPS: WTP Bandrol – 366.42 KLD WTPSeobagh – 219.93 KLD WTPBadah – 427.41 KLD			

Grid No	Infrastructure	Description					
		 WTPKotdhar – 275.785 KLD WTP Ghot – 165.11 KLD WTP Jhakru Gharat MohalKhad – 74.1 KLD 					
	Pump houses	Construction of six PHs: Pump House near Proposed WTP Bandrol, near Proposed WTP Seobagh, near Proposed WTP Badah, near Proposed WTPJhakru Gharat MohalKhad, near Proposed MBR Katai, near Proposed MBR Bhrogi					
	MBR	Construction of 6 Nos. MBRs (20KL,20KL, 25KL, 25KL, 45KL & 95KL)					
	SR	Construction of 22 No. SRs (14 Nos. of 20 KL, 2 Nos. of 25 KL, 2 Nos of 40KL, 1 no. of 35KL, 50 KL, 70 KL & 215 KL each)					
	Proposed Water Source	Proposed one source: Head Weir on Sotak Nallah					
MK-6	WTPs	 Construction of three WTPs: Proposed WTP Jaishtha -85.025 KLD Proposed WTP at Naroul -87.305 KLD Proposed WTPNautodNiul -41.99 KLD 					
WII C	Pump houses	Not Applicable					
	MBR	Construction of 2 Nos. MBRs of capacities 20 Kl and 40 KL					
	SR	Construction of 3 Nos. of SRs of capacities 40 KL, 20 KL, 20 KL					
	Proposed Water Source	Proposed Diversion Spur at TirthanKhad					
	WTPs	Construction of one WTP of 0.7 MLD capacity					
MK-7	Pump houses	Construction of 2 Nos. of Pump houses at WTP Sidha and 2 nd Stage at Padhola					
	MBR	Construction of 1 Nos of MBR of capacity 20 KL					
	SR	Construction of 12 Nos.of SRs (3 nos. of 20 KL, 4 nos. of 25 KL, 4 nos. of 40 KL,1 nos of 45 KL, 50 and 110 KL each)					
	Proposed Water Source	Proposed four head weir sources: Diversion spur on Joan Khad Head Weir on BhargolKhad Head Weir on Shaun Nalla Head Weir on Lohal Nalla					
MK-9	WTPs	Construction of 4 Nos. of WTPs: O.9 MLD (Joan Khad) O.2MLD (Near BhargolKhad) 35.44 KLD (near Existing SR Khadvi) 93.29 KLD (near Lohal Nalla)					
	Pump houses	Construction of 4 Nos. of PHs:					

Grid No	Infrastructure	Description			
		 Near WTP Joan Khad, Near WTP BhargolKhad Near MBR1 Near sumpwell in ManjhaDesh 			
	MBR	Construction of 4 MBR of capacities 20KL, 20KL, 20KL and 60KL.			
	SR	13 Nos SRs. (55KL, 20KL, 40KL, 30KL, 40KL, 25KL, 35KL, 20KL, 20KL, 50KL, 20KL, 20KL and 20KL)			
	Proposed Water Source	Proposed two water sources: Diversion Spur at KurpanKhad Intake Chamber on Patagai Nallah			
MK-12	WTPs	Construction of 2 WTPs: 1500 KLD (WTP Pujarilanj) 76.76 KLD (SSF Siswaser)			
IVITX-12	Pump houses	Not Required as Grid MK-12 is Gravity Based			
	MBR	Construction of 2 Nos. of MBRsof capacities 50 KL and 20 KL			
	SR	Construction of 12 Nos. of SRs & 1 Sump well of capacities 30KL, 235KL, 30KL, 20 KL, 45 KL, 35 KL, 20 KL, 45 KL, 20 KL, 20 KL, 20 KL, 30 KL and 85 KL			

Source: Preliminary Detailed Project Report, 2020-2021

Table 3: Existing Subproject Components proposed for Rehabilitation

	3: Existing Subproject Components p	
Infrastructure	Details	Proposed Rehabilitation
Service Level	The following existing structures are to be	 Retrofitting of existing Service Level
Reservoirs	repaired / rehabilitated:	Reservoirs including Boundary Wall and Approach Road
	Grid MK1	and Approach Road
	Existing SR Samalag – 10 KL	Civil repairs, rehabilitation, and
	Existing SR Mashna – 10 KL	construction of replacement of pipes,
	Existing SR Thach – 10 KL	connections, electrical and
		mechanicals parts as required
	GRID MK2	' '
	Existing SR Padru – 15 KL	
	Existing SR Padhar – 15 KL	Cleaning of OHT/SR
	Grid MK7	
	Existing SR Dhandhar – 25 KL	
Transmission	Currently, there is about 91 km existing	In the entire project area, 450 km new
and Distribution	Gravity Mains and 355 km distribution	water pipelines will be laid, and new
Network	network consists of GI pipes in water	house service connections will be
	supply in all 6 grids of Packade 1 but its	provided from the newly laid main.
	pipeline network is more than 25 years	Most of the evisting pipelines shall be
	old and most of the existing pipes cannot be used in proposal as there condition is	Most of the existing pipelines shall be left buried as it is.
	bad.	leit bulled as it is.
	bad.	If the existing water pipes are in the
	Distribution network which consists of	same lining of new water supply pipes,
	bulk water lines from SR to inhabited land	the contractor through a detailed survey
	parcels are under stress due to the	will establish the requirement of old
	increased water demand and to meet the	pipes removal for giving way to new
	low-pressure heads at household levels.	pipelines.
	Also, new land pockets have been	
	inhabited within the command area which	Those pipes shall be removed and
	were earlier completely vacant lands,	disposed in a controlled manner.
	necessitating the need to replace the bulk	
	water lines from SRs to villages to the	
	farthest extent of the village or habitation.	

Source: Preliminary Detailed Project Report, 2020-21

- 17. Additional information on Water source, Intake arrangements and WTPs are appended in **Appendix 10.**
- 18. **House Service Metered Connections**: Provide, lay, join, test and commission i/c fittings of House Service connection for 100% household coverage of the project area. Household connection shall be provided with 15mm diaGalvanized Iron pipe conforming to BIS-1239 through the ferrule, domestic smart water meter and CI clamps in the distribution network along with 15 mm GM gate valve. Information regarding number of proposed metered connections is presented in table 4 below.

Table 4: Proposed Metered Connection

Grid No.	Total Projected Population in 2022	Total number of Proposed Metered connections in 2022
MK-1	2934	587
MK-2	13195	2642
MK-6	2355	473
MK-7	6193	1241
MK-9	7236	1450
MK-12	9257	1854
Total	41170	8247

Source: Preliminary Detailed Project Report, 2020-21

19. Intakes, WTPs, Pump houses, MBRs and SRs are the major civil structures proposed in this package. The summary of number of proposed civil structures grid wise is summarized below.

Table 5: Number of Proposed Civil Structures in MZ01

	Number of Civil structures										
Package	Grid no.	Intake	WTPs	Pump House	MBRs	SRs					
	MK1	12	0	0	1	10					
	MK2	6	6	6	6	22					
M704	MK6	1	3	0	2	3					
MZ01	MK7	1	1	2	1	12					
	MK9	4	4	4	4	13					
	MK12	2	2	0	2	12					
Т	Total		16	12	16	72					

Source: Preliminary Detailed Project Report, 2020-21

- 20. As above table shows that there are about 26 new proposed intakes, 16 WTPs, 12 pump houses, 16 MBRs and 72 SRs that have been proposed under this package. The number of proposed intakes is more than the number of proposed WTPs, as water quality at some of the snow fed spring sources is good, as per BIS drinking water standards, and hence, there was no requirement or need to propose a treatment plant at that source. The grid wise detailed integrated plans¹ of the proposed components mentioned in the above table 5are appended in Appendix 17. The detailed description of these civil structures is appended in Table 2.
- 21. Out of the twenty-six (26) proposed intake structures in MZ01, Ninteen (19) are RCC made intake chambers, four (4) are tubewell intakes and remaining three (3) are headweirs with rectangular channels. The details of the newly proposed weirs used in this package are appended in Table 10-1 of Appendix 10.
- 22. The water transmission mains proposed in this package are shown in the tables below:

¹ Detailed Integrated Plan outlines all proposed components including intakes, pump houses, WTPs, water storage tanks, rising mains, gravity mains and distribution network in the project area.

Table 6: Raw Water Transmission Main

Cuid	Length of Pipe in Meter (Raw water transmission Main)								
Grid	50 mm	65 mm	80 mm	100 mm	125 mm	150 mm	200 mm		
MK-1	11489	3380	0	0	0	0	0		
MK-2	88	4835	78	3660	0	0	0		
MK-6	949	9365	0	0	0	0	0		
MK-7	3305	3901	0	230	0	0	0		
MK-9	1319	130	0	0	65	0	0		
MK-12	0	2169	0	0	0	0	19873		
Total Length	17150	23780	78	3890	65	0	19873		

Source: Preliminary Detailed Project Report, 2020-21

Table 7: Clear Water Transmission Main

	Length of Pipe in Meter (Clear water transmission Main)									
Grid	50 mm	65 mm	80 mm	100 mm	125 mm	150 mm	200 mm			
MK-1	0	0	0	0	0	0	0			
MK-2	13844	12316	2510	3900	0	0	0			
MK-6	3284	1178	0	0	0	0	0			
MK-7	2139	16851	1022	0	4387	0	0			
MK-9	7826	15363	0	3049	1357	0	0			
MK-12	3582	14424	3339	0	3546	0	36			
Total Length	30675	60132	6871	6949	9290	0	36			

Source: Preliminary Detailed Project Report, 2020-21

Table 8: Distribution Network

	Table 6. Distribution Network									
	Length of Pipe in Meter (Distribution network)									
Grid	25 mm	32 mm	40 mm	50 mm	65mm	80 mm	100 mm	125 mm	150 mm	
MK-1	2726	1365	2243	4748	2308	0	0	0	0	
MK-2	1486	6282	18535	16056	17791	2236	594	315	200	
MK-6	0	1531	3479	8211	11755	247	0	0	0	
MK-7	0	0	3620	15878	29050	4314	0	0	0	
MK-9	0	3768	21486	19188	16900	829	0	0	0	
MK-12	0	2199	12954	19352	17194	833	180	733	0	
Total Length	4212	15145	62317	83433	94998	8459	774	1048	200	

Source: Preliminary Detailed Project Report, 2020-21

- 23. Raw Water Transmission Mains The proposed raw water transmission mains are used to either lift the water from source/ intakes to WTPs/ sump wells or transport the water from source through gravity to WTPs. The length of pipe needed is ~65 KM and material of the pipe is MSERW in rising main and GI in gravity main. The diameter ranges are 50 mm to 200 mm.
- 24. Clear Water Transmission Mains The proposed clear water transmission mains are used either to lift water from WTPto MBR/ SR or to supply water from WTP/ MBR to MBR/ SR through gravity. The length of the pipe needed is about ~115 Km. The material of the pipe is GI. The diameter ranges are 50 to 200 mm.
- 25. Distribution Mains The proposed distribution network to convey water from Service Reservoirs to habitations is about ~271 Km. The material of the pipe is GI. The diameter ranges are 25 mm to 150 mm.
- 26. **Sludge Disposal Mechanism:** The incoming raw water from sources will be treated through either Slow sand filters or Rapid Sand filters for the removal for suspended solids, BOD, COD and any other impurities as per assigned drinking water standards.
 - (i) Provision of recirculation system for backwash water backwash water from filter beds will be re circulated to WTP inlet and mixed with raw water; this arrangement will minimize wastage of water, which otherwise would have disposed to open drains, and polluted the receiving water body. Since back water is recovered and recirculate in the WTP, no wastewater will be generated from water treatment process. Backwash water from filter beds will be sent to a storage tank, and after allowing adequate time for settlement of solids, clarified water will be pumped to WTP inlet. This arrangement will avoid pollution and minimize wastage of water;
 - (ii) Accumulated sludge will be disposed-off at sludge drying beds for natural drying. Dried sludge will be used as soil conditioner if it is suitable. The water quality in the sources is quite better as being snow fed. The sludge generated will be dried in the sludge drying bed for use as manure in green area within the WTP complex. Therefore, no additional land will be required for sludge disposal. Periodic testing of dried sludge will be conducted to ensure that it does not contain heavy metals that make it unsuitable for food crops. Tests will be conducted to confirm the concentrations below the following standards. As there are no specific standards notified for sludge reuse, the compost quality standards notified under the Municipal Solid Waste Management & Handling Rules, 2000have been adopted here.
- 27. **Rapid Sand Filter (RSF):** Components of the rapid sand filter i.e., Pre settling tank, connecting channel cum venturi flume, flash mix, flocculator, channel connecting flocculator to rapid gravity filter, rapid sand gravity filter and clear water reservoir are cast in-situ. It shall be ensured that WTP (RSF) components shall be designed to permit a 50% overload.
- 28. **Slow Sand Filter (SSF):** Components of the slow sand filter i.e., inlet chamber, filter beds (2 nos.) and collection tank are cast in-situ.

IV. FIELD SURVEYS AND PUBLIC CONSULTATIONS

- 29. Field visit, consultations and transect walks were carried out in the subproject area keeping in the COVID-19 precautionary measures. The field visits were carried out in November 2020 for MZ01 (District Kullu Package-3). Due to rise in COVID-19 cases in the state, the team, JSV officials and community were mandated to follow strict COVID-19 protection protocols as appended in **Appendix 2**. All the JSV officials and the team were using PPEs during stakeholder consultations and Focus group discussions (FGDs). The public consultations and FGDs were conducted in open places wherever reachable. Adequate social distancing was followed during the consultations and site visits. During the consultation, the temperature of the participants was measured; further, oximeter was also used to analyse the blood oxygen level of the participants and only healthy participants were allowed to participate in the consultation. Thereafter, the sanitizer has been distributed among the participants. The team has also distributed the masks to community members who were not wearing masks, before beginning of the consultations. The team and JSV officials wore face shields during community consultations. The details of public consultations are appended in **Appendix 3**.
- 30. Limited Field visits and transect walk were carried out in the subproject area due to COVID-19 pandemic and travel/movement restrictions and strict protocols. The team involved in this exercise are DPR consultants, safeguard consultants, and PIU officials. Works are mostly proposed in residential areas as well as areas in the outskirts of the villages and within the RoW of the government road. No vendors/squatters were identified during the transect walk. Public consultations as well as meetings and discussions were held with key informants and local community in order to collect information for this due diligence report wherever accessible and permissible due to Covid-19.
- 31. Site inspections were carried out at the site locations of MZ01 (District Kullu Package-3) for the proposed water supply components that include the locations of the Intakes, WTPs, Pump houses, MBRs and SRs. Both existing and proposed component locations were visited to analyse the site and surrounding features along the stretches of the proposed pipeline alignments, especially along the market areas, villages and habitations. Pipeline alignments are preferred to be laid along the roads, pathways and small trails to avoid disruption in villages/habitations wherever possible. The existing alignment was preferred while designing the pipeline network wherever plausible. Right of way/access roads will be used while laying of pipelines for few hours and the traffic will not be disturbed during execution with adopting prior informed schedule of activity. In addition, consultations were conducted with the officers of Jal Shakti Vibhag (JSV), and other stakeholders. Participatory methodology was used to facilitate discussions in the community meetings to solicit ideas and views on the proposed package. The consultations indicate that a major demand from the community members is for the strengthening of water supply network with full coverage to areas. The consultations also include discussions about the project objectives, implementation arrangements including grievance redress mechanism (GRM) and the safeguards requirements as laid down in the ADB SPS. Appendix 3 summarizes the details of public consultations.
- 32. Furthermore, a sample survey of the critical areas (Market areas, Junction points, major roads) was carried out with the help of Google Earth images and site photographs to ascertain further if there are any potential involuntary resettlement impacts. Site visits, consultations and sample survey were conducted by the team comprising detailed project report (DPR) consultants, social safeguard consultant and staff from concerned project implementation units (PIUs). **Appendix 7, 8 and 9**summarizes the findings of sample survey.

33. Community engagement, public consultations and information disclosure will be an ongoing exercise through the entire subproject planning and implementation phase. An indicative list of consultations to be conducted in future and schedule is presented in the table below. Progress achievements in this respect will be reported in the semi-annual social monitoring reports by the PMU.

Table 9: Schedule of Consultation and Disclosure Activities

Activities	Target Group	Responsible Agency	Timeline
Awareness generation about the project activities	Key stakeholder agencies (Villages, Gram Panchayats, PIU offices such as JSV, elected representatives	PIU/contractor with PMU/PDMSC inputs and support	During detailed design, prior to start of construction, and continuously, during construction
Disclosure of construction schedule, potential temporary disturbances and GRM	Beneficiaries (site-specific consultations)	PIU/contractor/PDMSC	During construction
Gram Panchayat wide stakeholder consultations	Dissemination of project related technical and other information to representatives of all key stakeholders (at one platform), disclosure of summary of social safeguard documents in local languages, proposed connection charges and tariffs, roles and responsibilities of stakeholders.	PIU/contractor with PMU/PDMSC inputs and support	Once a year during project implementation cycle

V. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

- 34. The scope of land acquisition and involuntary resettlement impacts has been identified based on the field visits and transect walk to the subproject components' locations. Table 10 below summarizes the land acquisition and involuntary resettlement impacts of the proposed subproject. No impacts on structures and livelihood are anticipated.
- 35. The components are proposed on available government lands and Eleven (11) components are on private land which will be obtained throughVoluntary Land Donation. No land donation from any Vulnerable²/BPL³ household will be done, and it will not render them landless.

² Vulnerable Households/ groups comprise of those living below the poverty line, elderly headed households, destitute children (orphans, child workers), scheduled caste, scheduled tribes, disable-headed household, and transgender people, landless persons and those without legal site.

Source: (1) HTTP://LABOURBUREAUNEW.GOV.IN. (II)nttps://www.ceicdata.com/en/india/consumer-price-index-agriculturallabourers-198687100-by-states/cpi-86p-agri-labourers-himachal-pradesh

³ The Planning Commission, Government of India, in its press note on Poverty Estimates, 2011-2012 and Reserve Bank of India, specifies rural poverty line of Himachal Pradesh to ₹913 per capita per month based on computation as per Tendulkar Method on Mixed Reference Period (MRP). The Rural poverty line in Himachal Pradesh has been adjusted to ₹1420 for June 2020-21 for an average inflation at 5.04% per annum.

Source: (i) http://labourbureaunew.gov.in. (ii)https://www.ceicdata.com/en/india/consumer-price-index-agricultural-

Table 10: Subproject Components and Summary of Involuntary Resettlement Impact

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
1	MK1	WSS Samalang	Proposed Intake Chamber	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) ^a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
2	MK1	WSS Samalang	Proposed SR Samalang	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Samalangwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-titleholders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
3	MK1	WSS Phallan	Proposed Intake Suraggmani	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						t survey (DMS) ^a	permanent IR impact envisaged.
4	MK1	WSS Phallan	Proposed SR Phallan	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Phallanwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
5	MK1	WSS Dughilag	Proposed Intake Nayapani	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
6	MK1	WSS Dughilag	Proposed SR Shildhari	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shildhariwill be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
7	MK1	WSS Dughilag	Proposed Intake Chamber Chhaya	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized	emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged. Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no
						during Detailed measuremen t survey (DMS) a	permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
8	MK1	WSS Dughilag	Proposed Intake Chamber Pawanag	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
9	MK1	WSS Dughilag	Proposed SR Dughilag	None	Unused Vacant Land	3 m wide and 20 m long	Proposed SR Dughilagwill be constructed on the available government land owned by the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
10	MK1	WSS Mashna	Proposed Intake Thach Nallah-1	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
11	MK1	WSS Mashna	Proposed SR Shelmail	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shelmailwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
12	MK1	WSS Mashna	Proposed SR Mashegra	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Mashergawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
13	MK1	WSS Mashna	Proposed Intake Chicham	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
14	MK1	WSS Mashna	Proposed Intake Mashna Nallah- 1	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						t survey (DMS) ^a	permanent IR impact envisaged.
15	MK1	WSS Mashna	Proposed Intake Mashna Nallah- 2	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
16	MK1	WSS Mashna	Proposed MBR Gadeshed	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Gadeshed will be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
17	MK1	WSS Mashna	Proposed SR Shimlang	None	Unused Vacant Land	3 m wide and 20 m long	Proposed SR Shimlang will be constructed on the available government land owned by the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
18	MK1	WSS Mashna	Proposed SR Shertu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shertu will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
19	MK1	WSS Mashna	Proposed SR Pankuti	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Pankuti will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
20	MK1	WSS Mashna	Proposed Intake Chamber Phala	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						measuremen t survey (DMS) ^a	NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
21	MK2	WSS Sarach, Kolibehar,Badah&KhalyaniPadhar	Proposed Bore well Jhakru Gharat MohalKhad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) ^a	Proposed Borewell will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
22	MK2	WSS Sarach, Kolibehar,Badah&KhalyaniPadhar	Proposed Borewell Badah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Borewell will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
23	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed WTP (Slow Sand filter Jhakru Gharat MohalKhad)	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. The proposed WTP will be

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							constructed next to the existing WTP. The existing WTP is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
24	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed WTP Badah(Slow Sand Filter)	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
25	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed Pump House Near WTP Mohalkhad	None	Unused Vacant Land	Same campus as WTP	Proposed PH will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
26	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed Pump House Badah Near WTP	None	Unused Vacant Land	Same campus as WTP	Proposed PH will be constructed on the available government land owned by the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
27	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed Pump House Bhrogi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged. Proposed Pump house Bhrogiwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
28	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed MBR Bhrogi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Bhrogi will be constructed on the private Land Voluntary Donated by the Owner Mr. Shyam Chand. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
29	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed SR Sarach	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Sarachwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged
30	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed SR Badah	None	Unused Vacant Land	13 m wide and 20 m long bituminous road	Proposed SR Badahwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
31	MK2	WSS Sarach,Kolibehar,Badah&KhalyaniPadha r	Proposed SR KoliBerh	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR KoliBerhwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
32	MK2	WSS Seobagh	Proposed Bore well Seobagh	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Borewell will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
33	MK2	WSS Seobagh	Proposed WTP Seobagh	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP and PH will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
34	MK2	WSS Seobagh	Proposed Pumping Station Seobagh Near WTP	None	Unused Vacant Land		
35	MK2	WSS Seobagh	Proposed MBR Seobagh	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Seobaghwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
36	MK2	WSS Seobagh	Proposed SR Malhar	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Malharwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
37	MK2	WSS Seobagh	Proposed SR Hawai	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Hawai will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
38	MK2	WSS Dharaghot	Proposed Intake Chamber Khuad Nallah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
39	MK2	WSS Dharaghot	Proposed Intake Chamber Kais Nallah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Intake Chamber will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
40	MK2	WSS Dharaghot	Proposed WTP (Slow Sand filter Kot Dhar)	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
41	MK2	WSS Dharaghot	Proposed WTP (Slow Sand filter Ghot)	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
42	MK2	WSS Dharaghot	Proposed MBR Kot Dhar	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Kot Dhar will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
43	MK2	WSS Dharaghot	Proposed MBR Ghot	None	Unused Vacant Land	3 m wide and 20 m long	Proposed MBR Ghot will be constructed on the available government land owned by the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	Forest Department. There is no permanent or temporary structure, non-titleholders NTHon the proposed land. No temporary or permanent IR impact is envisaged
44	MK2	WSS Dharaghot	Proposed SR Sour	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Sour will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
45	MK2	WSS Dharaghot	Proposed SR Soil	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Soil will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
46	MK2	WSS Dharaghot	Proposed SR Romani	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Romani will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged
47	MK2	WSS ChachogaMalhar	Proposed SR Chachoga	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Chachogawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
48	MK2	WSS ChachogaMalhar	Proposed SR Banogi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Banogiwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
49	MK2	WSS ChachogaMalhar	Proposed SR Sharan Age	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Sharan Age will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
50	MK2	WSS ChachogaMalhar	Proposed SR Tandla	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Tandlawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
51	MK2	WSS ChachogaMalhar	Proposed SR Tandla-2	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Tandla-2 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
52	MK2	WSS Soul Sor Kararsu	Proposed Bore Well Bandrol	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Borewell will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
53	MK2	WSS Soul Sor Kararsu	Proposed WTP Bandrol	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
54	MK2	WSS Soul Sor Kararsu	Proposed Pumping Station Bandrol	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed PH will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
55	MK2	WSS Soul Sor Kararsu	Proposed Pumping Station Katai	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed PH will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							permanent IR impact envisaged.
56	MK2	WSS Soul Sor Kararsu	Proposed MBR Katai	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Katai will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
57	MK2	WSS Soul Sor Kararsu	Proposed MBR Manjhdhari	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
58	MK2	WSS Soul Sor Kararsu	Proposed SR Kais	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Kais will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
59	MK2	WSS Soul Sor Kararsu	Proposed SR Bishtbehar(OHT -15M)	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
60	MK2	WSS Soul Sor Kararsu	Proposed SR Bhalogi-1	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Bhalogi-1 will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
61	MK2	WSS Soul Sor Kararsu	Proposed SR Chogin	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Choginwill be constructed on the available on government land under the ownership of forest department There is no

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
62	MK2	WSS Soul Sor Kararsu	Proposed SR	None	Unused	3 m wide and	permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged. Proposed SR Foshniwill be
			Foshni		Vacant Land	20 m long bituminous road	constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
63	MK2	WSS Soul Sor Kararsu	Proposed SR Manjhdhari	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Manjhdhariwill be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
64	MK2	WSS Soul Sor Kararsu	Proposed SR Khararsu	None	Unused Vacant Land	3 m wide and 20 m long	Proposed SR Khararsuwill be constructed on the available on government land under the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
65	MK2	WSS Soul Sor Kararsu	Proposed SR Kholtu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Kholtuwill be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
66	MK2	WSS Soul Sor Kararsu	Proposed SR Bhalogi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Bhalogiwill be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
67	MK6	WSS NeenuJaishtha	Proposed Head wierRectangular channel	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Head wierRectangular channel will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
68	MK6	WSS NeenuJaishtha	Proposed Sump Well Sotak Nallah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Sump Well Sotak Nallah will be constructed on the available on government land under the ownership of forest department There is no permanent or temporary structure or non-title holders NTHon the proposed land. Thus, no temporary or permanent IR impact envisaged.
69	MK6	WSS NeenuJaishtha	Proposed WTP (Slow Sand Filter)	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
70	MK6	WSS NeenuJaishtha	Proposed MBR Jaishtha	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Jaishthawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
71	MK6	WSS NeenuJaishtha	Proposed SR Neenu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Neenuwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
72	MK6	WSS NeenuJaishtha	Proposed SR Jaishtha	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Jaishthawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							NTHon the proposed land. No temporary or permanent IR impact is envisaged.
73	MK6	WSS NarolGarsaDhara	Proposed WTP (Slow Sand Filter) NautodNiul	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
74	MK6	WSS NarolGarsaDhara	Proposed WTP (Slow Sand Filter) at Naroul	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
75	MK6	WSS NarolGarsaDhara	Proposed MBR Naroul	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Naroul will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
76	MK6	WSS NarolGarsaDhara	Proposed SR Nalashri	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Nalsari will be constructed on the private Land Voluntary Donated by the Owner Mr. Khem Chand. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
77	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed diversion spur at Khad source including Rectangular Channel at TirthanKhad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed head weir Rectangular Channel & sump well with raw water Pumps at TirthanKhadwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
78	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed Sump Well at TirthanKhad to Proposed WTP	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Sump Well at TirthanKhad to Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
79	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed WTP Shida	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP Shidawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
80	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed Pump House Shida	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed PH Shidawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
81	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed Sump well cum SR at Padhola	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed Sump well cum SR at Padholawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
82	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed Pump House 2 nd Stage Padhola	None	Unused Vacant Land	3 m wide and 20 m long	Proposed Pump House 2 nd Stage Padholawill be constructed on the available

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged
83	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed MBR Jauri	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR Jauri will be constructed on the private Land Voluntary Donated by the Owner Mr. Narayan The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
84	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Bihali	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Bihali will be constructed on the private Land Voluntary Donated by the Owner Mr. Gulab Chand. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
85	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Pataula	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Pataula will be constructed on the private Land Voluntary Donated by the Owner Mr. Hira lal. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
86	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Marour	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Marour will be constructed on the private Land Voluntary Donated by the Owner Mr. Yub Raj. The Land is vacant and unused. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. Thus, no temporary or permanent IR impact is envisaged.
87	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Sukaribir	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Sukaribir will be constructed on the private Land Voluntary Donated by the Owner Mr. Jeet ram. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
88	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Chakurtha	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Chakurtha will be constructed on the private Land Voluntary Donated by the Owner Mr. Gian Chand. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. The Land is

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks vacant and unused. Thus, no
							temporary or permanent IR impact is envisaged.
89	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Bagadhar	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Bagadhar will be constructed on the private Land Voluntary Donated by the Owner Mr. Maydhar Sharma. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.
90	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Jamala	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Jamalawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
91	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Busari	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Busariwill be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
92	MK7	WSS SarchiBandalArkhaliPhagwana	Proposed SR Ruhan	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Ruahn will be constructed on the private Land Voluntary Donated by the Owner Mr. Mehar Chand. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. The land is unused and vacant. Thus, no temporary or permanent IR impact is envisaged.
93	MK7	WSS Thatibir, Targali&Manglore etc	Proposed SR Manglore	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Manglore will be constructed on the private Land Voluntary Donated by the Owner Mr. Khem Singh. The Land is vacant and unused. Thus, no temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
94	MK7	WSS Seraj	Proposed SR Pattan	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Pattanwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
95	MK7	WSS Seraj	Proposed SR Barnaal	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Barnaalwill be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
96	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed diversion spur at Joan Khad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed	Proposed head weir Rectangular Channel & sump well at Joan Khadwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						measuremen t survey (DMS) ^a	structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
97	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed WTP Joan Khad	None	Unused Vacant Land	3 m wide and 50 m long bituminous	Proposed WTP and PH Joan Khadwill be constructed on the available government land
98	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed Pump House near Proposed WTP Joan Khad	None	Unused Vacant Land	road	owned by the Forest Department. There is no permanent or temporary structure, Non-Titled Holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
99	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed Pump House near Proposed Sumpwell cum SR in Village ManjhaDesh	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed Pump House near Proposed Sumpwell cum SR will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
100	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed Sumpwell cum SR in Village ManjhaDesh	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed sumpwell cum SR will be constructed on the available government land owned by the Forest

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
101	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed Pump House Near MBR-1(OHT)	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed PH will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
102	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed MBR- 1(OHT-10M)	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR-1 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
103	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed MBR- 2	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR-2 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
104	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed MBR- 3	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR-3 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
105	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Kutwa-1	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Kutwa-1 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
106	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Dhovi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Dhoviwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
107	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Dhagoot	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Dhagootwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
108	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Paaja Bai	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Paaja Bai will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
109	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Kohila(OHT- 15M)	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Kohila(OHT-15M) will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
110	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Juni Bag	None	Unused Vacant Land	3 m wide and 20 m long	Proposed SR Juni Bag will be constructed on the available government land owned by the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						bituminous road	Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
111	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Mahogi(OHT- 10M)	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Mahogi(OHT-10M) will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
112	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Mohvi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Mohviwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
113	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Gagani	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Gaganiwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							NTHon the proposed land. No temporary or permanent IR impact is envisaged.
114	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Shigagi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shigagiwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
115	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at BhargodKhad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed head weir Rectangular Channel & sump at BhargodKhadwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
116	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed WTP Bharhod	None	Unused Vacant Land	3 m wide and 50 m long bituminous	Proposed WTP and PH Bharhodwill be constructed on the available government land
117	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed Pump House Bhargod	None	Unused Vacant Land	road	owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
118	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed MBR- 4	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR-4 will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
119	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR GSSS Khang	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR GSSS Khangwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
120	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Tilara	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Tilarawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
121	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at Lohal Nallah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed head weir Rectangular Channel & sump at Lohal Nallah will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
122	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed WTP (Slow Sand Filter) at LohalRiuan	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP (Slow Sand Filter) at LohalRiuanwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
123	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed SR Mithunu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Mithunuwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							temporary or permanent IR impact is envisaged.
124	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at Shoun Nallah	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed head weir Rectangular Channel & sump at Shoun Nallah will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
125	MK9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt. Kullu	Proposed WTP (Slow Sand Filter) at Near SR Khadvi	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
126	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed diversion spur on Kurpan Khad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen	Proposed head weir Rectangular Channel & sump at Shoun Nallah will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
						t survey (DMS) ^a	temporary or permanent IR impact is envisaged.
127	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed Sumpwell at KurpanKhad	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed Sumpwellwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
128	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Water Treatment Plant at Pujarilanj	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
129	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Slow sand filter at Siswaser	None	Unused Vacant Land	3 m wide and 50 m long bituminous road	Proposed WTP will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
130	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed MBR Pujarilanj	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
131	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed MBR Mokutu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed MBR will be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary or permanent IR impact is envisaged.
132	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Nirmand	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Nirmandwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
133	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Sarkoti	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Sarkotiwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							structure, non-title holders NTHon the proposed land. No temporary
134	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Shishvi	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shishviwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
135	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Shanu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Shanuwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
136	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Marehri	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Marehriwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
137	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Remu	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Remuwill be constructed on the available government land owned by the Forest Department. There is

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
138	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Kedas	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Kedaswill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
139	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Bail	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Bail will be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
140	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Pokhni	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Pokhniwill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							structure, non-title holders NTHon the proposed land. No temporary
141	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Achwa	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Achwawill be constructed on the available government land owned by the Forest Department. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
142	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Chhotu	None	Unused Vacant Land	1-2 m kaccha pathway. It will be assessed and finalized during Detailed measuremen t survey (DMS) a	Proposed SR Chhotuwill be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary
143	MK12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Proposed SR Koli	None	Unused Vacant Land	3 m wide and 20 m long bituminous road	Proposed SR Koliwill be constructed on the available government land owned by the Forest Department. The proposed tank will be constructed next to the

SN.	Grid	Scheme Name	Name of the Components	Land Acquisition & Involuntary Resettlemen t Impacts (Temporary/ Permanent Impacts)	Presen t Use of Land	Access Road	Remarks
							existing tank. The existing tank is owned by JSV and is proposed to be retained for emergency use. There is no permanent or temporary structure, non-title holders NTHon the proposed land. No temporary

Source: Site Visits, Transect walks, sample survey, DPRs, technical documents and analysis.

^a No Improvement or widening of Kaccha pathways/ access road is proposed. Hence, there will be no requirement or private land acquisition. No impact is anticipated as there is no permanent/ temporary structure or Non-Title Holder NTH on the Kaccha pathways.

Table 11: Details of land availability, ownership, description of surrounding areas, present land Use and status of No Objection Certificate (NOC) for sites

S	Grid	Scheme	Project	Location/	Ownership	Area of land	Area	Khasr	Remarks	Photo of Land
N.		Name	Component	Village		available at	64equir	a No.		
						the location (m²)	e (m²)			
1	MK-1	WSS Samalang	Proposed Intake Chamber	Teun	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	Seniole touries
2	MK-1	WSS Samalang	Proposed SR Samalang	Teun	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	ETORAGE TANK IMALLANG
3	MK-1	WSS Phallan	Proposed Intake Suraggmani	Phallan	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
4	MK-1	WSS Phallan	Proposed SR Phallan	Phallan	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
5	MK-1	WSS Dughilag	Proposed Intake Nayapani	Nayapani	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
6	MK-1	WSS Dughilag	Proposed SR Shildhari	Dughilag	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
7	MK-1	WSS Dughilag	Proposed Intake Chamber Chhaya	Chhaya Pani	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	CHHAYA PAN SPRAYO SOURCE
8	MK-1	WSS Dughilag	Proposed Intake Chamber Pawanag	Pawanag	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	AND ADDRESS OF THE PARTY OF THE

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
9	MK-1	WSS Dughilag	Proposed SR Dughilag	Dughilag	Forest Land	55000000	81	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	STOPADI TANG BURHE VI
10	MK-1	WSS Mashna	Proposed Intake Thach Nallah-1	Mashna	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	THACK HALLANI
11	MK-1	WSS Mashna	Proposed SR Shelmail	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
12	MK-1	WSS Mashna	Proposed SR Mashegra	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
13	MK-1	WSS Mashna	Proposed Intake Chicham	Mashna	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	SCHOOL SECTION
14	MK-1	WSS Mashna	Proposed Intake Mashna Nallah-1	Mashna	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
15	MK-1	WSS Mashna	Proposed Intake Mashna Nallah-2	Mashna	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
16	MK-1	WSS Mashna	Proposed MBR Gadeshed	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
17	MK-1	WSS Mashna	Proposed SR Shamlang	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	STORAGE TANK SMALLANG
18	MK-1	WSS Mashna	Proposed SR Shertu	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
19	MK-1	WSS Mashna	Proposed SR Pankuti	Mashna	Forest Land	55000000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
20	MK-1	WSS Mashna	Proposed Intake Chamber Phala	Mashna	Forest Land	55000000	16	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4943/2020 for land transfer to JSV is appended in Appendix 4(a).	
21	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed Bore well Jhakru Gharat MohalKhad	Mohal	Forest Land	5500000	24	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
									JSV is appended in Appendix 4(a).	
22	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed Borewell Badah	Badah	Forest Land	5500000	24	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
23	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed WTP (Slow Sand filter Jhakru Gharat MohalKhad)	Mohal	Forest Land	5500000	680	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
24	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed WTP Badah(Slow Sand Filter)	Badah	Forest Land	5500000	1080	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
									google earth imagery	
25	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed Pump House Near WTP Mohalkhad	Mohal	Forest Land	5500000	48	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Amunication and Advance
26	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed Pump House Badah Near WTP	Badah	Forest Land	5500000	48	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
27	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed Pump House Bhrogi	Bhrogi	Forest Land	5500000	48	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
28	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed MBR Bhrogi	Bhrogi	ForestLan d	5500000	64	Tukda No- 1*	Refer Appendix 5 for Land records/ NOCs	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
29	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed SR Sarach	Sarach	Forest Land	5500000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	SR VILLAGE SARACH
30	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed SR Badah	Badah	Forest Land	5500000	169	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	SR Badal
31	MK-2	WSS Sarach,Kolibe har,Badah&K halyaniPadhar	Proposed SR KoliBerh	Koliberh	Forest Land	5500000	64	Tukda No- 1*	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	SR VILLAGE KOLIBERN
32	MK-2	WSS Seobagh	Proposed Bore well Seobagh	Kais	Forest Land	2134	24	5	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
33	MK-2	WSS Seobagh	Proposed WTP Seobagh	Kais	Forest Land	2134	900	5	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
									Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
34	MK-2	WSS Seobagh	Proposed Pumping Station Seobagh Near WTP	Kais	Forest Land	2134	48	5	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
35	MK-2	WSS Seobagh	Proposed MBR Seobagh	Kais	Forest Land	1150	100	861	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
36	MK-2	WSS Seobagh	Proposed SR Malhar	Kais	Forest Land	2134	64	307	FCA Application no. FP/HP/Water/11	
37	MK-2	WSS Seobagh	Proposed SR Hawai	Kais	Forest Land	587	64	608	4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
38	MK-2	WSS Dharaghot	Proposed Intake Chamber Khuad Nallah	Kais	Forest Land	1554	16	1	FCA Application no. FP/HP/Water/11 4946/2020 for	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
39	MK-2	WSS Dharaghot	Proposed Intake Chamber Kais Nallah	Kais Nallah	Forest Land	1554	16	1	land transfer to JSV is appended in Appendix 4(a).	down the same
40	MK-2	WSS Dharaghot	Proposed WTP (Kot Dhar)	Kais	Forest Land	800	680	507	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
41	MK-2	WSS Dharaghot	Proposed WTP (Slow Sand filter Ghot)	Kais	Forest Land	1231	600	692	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
42	MK-2	WSS Dharaghot	Proposed MBR Kot Dhar	Kais	Forest Land	423	81	507	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Process AND School Control (New Yorks)
43	MK-2	WSS Dharaghot	Proposed MBR Ghot	Kais	Forest Land	1231	64	692	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
44	MK-2	WSS Dharaghot	Proposed SR Sour	Kais	Forest Land	939	64	287	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Proposed SRSMI
45	MK-2	WSS Dharaghot	Proposed SR Soil	Kais	Forest Land	2521	81	814	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Proposed \$8.5ml

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
46	MK-2	WSS Dharaghot	Proposed SR Romani	Kais	Forest Land	810	81	668	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	September 100 mark
47	MK-2	WSS ChachogaMal har	Proposed SR Chachoga	Kais	Forest Land	2246	64	365	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
48	MK-2	WSS ChachogaMal har	Proposed SR Banogi	Kais	Forest Land	3620	64	253	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
49	MK-2	WSS ChachogaMal har	Proposed SR Sharan Age	Kais	Forest Land	526	64	286	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	

Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
MK-2	WSS ChachogaMal har	Proposed SR Tandla	Kais	Forest Land	3378	64	584	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
MK-2	WSS ChachogaMal har	Proposed SR Tandla-2	Kais	Forest Land	1087	64	564	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
MK-2	WSS Soul Sor Kararsu	Proposed Bore Well Bandrol	Kais	Forest Land	4558	24	3	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
MK-2	WSS Soul Sor Kararsu	Proposed WTP Bandrol	Kais	Forest Land	4558	960	3	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra	
	MK-2 MK-2	MK-2 WSS ChachogaMal har MK-2 WSS ChachogaMal har MK-2 WSS Soul Sor Kararsu MK-2 WSS Soul Sor	MK-2 WSS Soul Sor Kararsu Name Component Component Component Component Component Component Proposed SR Tandla Tandla-2 Proposed SR Tandla-2 Proposed SR Tandla-2 Proposed Bore Well Bandrol	MK-2 WSS Soul Sor Kais MK-2 WSS Soul Sor Froposed Bandrol Kais Kais Kais Kais Froposed Bore Well Bandrol Kais	MK-2 WSS Soul Sor Kararsu MK-2 WSS Soul Sor Proposed Kais Forest Land	Name Component Village available at the location (m²) MK-2 WSS ChachogaMal har Proposed SR Tandla Kais Forest Land 3378 MK-2 WSS ChachogaMal har Proposed SR Tandla-2 Kais Forest Land 1087 MK-2 WSS Soul Sor Kararsu Proposed Bore Well Bandrol Kais Forest Land 4558 MK-2 WSS Soul Sor Proposed Kais Forest Land 4558	NameComponentVillageavailable at the location (m²)64equir e (m²)MK-2WSS ChachogaMal harProposed SR TandlaKais Forest Land337864MK-2WSS ChachogaMal harProposed SR Tandla-2 harKais Forest Land108764MK-2WSS Soul Sor KararsuProposed Bore Well BandrolKais Forest Land455824MK-2WSS Soul Sor Proposed KararsuKais Forest Land4558960	Name Component Village available at the location (m²) a No.	Name Component Village available at the location (m²) (

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
									google earth imagery	
54	MK-2	WSS Soul Sor Kararsu	Proposed Pumping Station Bandrol	Kais	Forest Land	4558	48	3	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
55	MK-2	WSS Soul Sor Kararsu	Proposed Pumping Station Katai	Kais	Forest Land	2483	48	135	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	The Ministry Wisson of the Contract of the Con
56	MK-2	WSS Soul Sor Kararsu	Proposed MBR Katai	Kais	Forest Land	2483	64	135	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
57	MK-2	WSS Soul Sor Kararsu	Proposed MBR Manjhdhari	Kais	Forest Land	8741	64	196	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	本 读和
58	MK-2	WSS Soul Sor Kararsu	Proposed SR Kais	Kais	Forest Land	1743	81	944	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
59	MK-2	WSS Soul Sor Kararsu	Proposed SR Bishtbehar(O HT-15M)	Kais	Forest Land	2483	81	1357	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
60	MK-2	WSS Soul Sor Kararsu	Proposed SR Bhalogi-1	Kais	Forest Land	3160	64	170	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
61	MK-2	WSS Soul Sor Kararsu	Proposed SR Chogin	Kais	Forest Land	2502	64	228	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
62	MK-2	WSS Soul Sor Kararsu	Proposed SR Foshni	Kais	Forest Land	6142	64	643	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
63	MK-2	WSS Soul Sor Kararsu	Proposed SR Manjhdhari	Kais	Forest Land	2556	64	22	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Transact Memory
64	MK-2	WSS Soul Sor Kararsu	Proposed SR Khararsu	Kais	Forest Land	5424	64	349	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
65	MK-2	WSS Soul Sor Kararsu	Proposed SR Kholtu	Kais	Forest Land	279	64	299	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	Philipped Fraid
66	MK-2	WSS Soul Sor Kararsu	Proposed SR Bhalogi	Kais	Forest Land	3797	64	222	FCA Application no. FP/HP/Water/11 4946/2020 for land transfer to JSV is appended in Appendix 4(a).	
67	MK-6	WSS NeenuJaishth a	Proposed Head wier Rectangular channel	Sotak Nallah	Forest Land	290000000	20	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	
68	MK-6	WSS NeenuJaishth a	Proposed Sump Well Sotak Nallah	Sotak Nallah	Forest Land	290000000	12	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	Sump wel Sotak Nala

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
69	MK-6	WSS NeenuJaishth a	Proposed WTP (Slow Sand Filter)	Parli	Forest Land	290000000	485	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
70	MK-6	WSS NeenuJaishth a	Proposed MBR Jaishtha	Parli	Forest Land	290000000	64	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	MI PLYS MAI
71	MK-6	WSS NeenuJaishth a	Proposed SR Neenu	Parli	Forest Land	290000000	64	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	SR NEENU VILLAGE

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
72	MK-6	WSS NeenuJaishth a	Proposed SR Jaishtha	Parli	Forest Land	290000000	81	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	SRIESTEA
73	MK-6	WSS NarolGarsaDh ara	Proposed WTP (Slow Sand Filter) NautodNiul	Bhallan	Forest Land	290000000	400	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
74	MK-6	WSS NarolGarsaDh ara	Proposed WTP (Slow Sand Filter) at Naroul	Bhallan	Forest Land	290000000	485	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
									google earth imagery	
75	MK-6	WSS NarolGarsaDh ara	Proposed MBR Naroul	Bhallan	Forest Land	290000000	81	Tukda- 1	FCA Application no. FP/HP/Water/11 4934/2020 for land transfer to JSV is appended in Appendix 4(a).	(Pourel and maritimes)
76	MK-6	WSS NarolGarsaDh ara	Proposed SR Nalashri	Bhallan	Private Land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	
77	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed Diversion spur at Tirthan Khad	Ratwah	Forest Land	290000000	20	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
78	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed Sump Well at TirthanKhad to Proposed WTP	Ratwah	Forest land	290000000	12	Tukda No-1 near Khasra No- 176, 177	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
79	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed WTP Shida	Ratwah	Forest land	290000000	2230	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	Francis (FV de planti Pagas)
80	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed Pump House Shida	Ratwah	Forest land	29000000	48	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	Transiti Propinsi

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
81	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed Sump well cum SR at Padhola	Chakurth a	Forest land	290000000	100	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
82	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed Pump House 2 nd Stage Padhola	Chakurth a	Forest land	290000000	48	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
83	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed MBR Jauri	Chakurth a	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	Joan
84	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Bihali	Bihali	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	an hibah

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
85	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Pataula	Thati Bir	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	
86	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Marour	Thati Bir	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	
87	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Sukaribir	Thati Bir	Private land	290000000	81	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	SR Shikaribir
88	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Chakurtha	Chakurth a	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
89	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Bagadhar	Chakurth a	Private land	290000000	81	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	
90	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Jamala	Sarachi	Forest land	290000000	81	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
91	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Busari	Sarachi	Forest land	290000000	81	Tukda- 1	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
92	MK-7	WSS SarchiBandal ArkhaliPhagw ana	Proposed SR Ruhan	Chakurth a	Private land	29000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
93	MK-7	WSS Thatibir, Targali&Mang lore etc	Proposed SR Manglore	Ratwah	Private land	290000000	64	Tukda- 1	Refer Appendix 5 for Land records/ NOCs	
94	MK-7	WSS Seraj	Proposed SR Pattan	Seeraj	Forest land	290000000	64	Tukda No-1 near Khasra No-106	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	Territoria de Principal de Prin
95	MK-7	WSS Seraj	Proposed SR Barnaal	Seeraj	Forest land	290000000	81	Tukda No-1 near Khasra No- 2069	FCA Application no. FP/HP/Water/11 4930/2020 for land transfer to JSV is appended in Appendix 4(a).	
96	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed diversion spur at Joan Khad	Kohila	Forest Land	80	25	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	head Weer WTP pump Insues alguann khad

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location	Area 64equir e	Khasr a No.	Remarks	Photo of Land
						(m²)	(m²)			
97	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed WTP Joan Khad	Kohila	Forest Land	3500	2670	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra	head wear WTP pump house at Jaco khad
									map records and google earth imagery	
98	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed Pump House near Proposed WTP Joan Khad	Kohila	Forest Land	80	63.15	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	head wear WTP pump house st Jaon khad
99	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed Pump House near Proposed ProposedSum pwell cum SR in Village ManjhaDesh	ManjhaD esh	Forest Land	110	48	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	count house same with anything manual and
10 0	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil			Forest Land	130	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
		Anni Distt. Kullu							JSV is appended in Appendix 4(a).	
10	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed Pump House Near MBR- 1(OHT)	Kohila	Forest Land	160	48	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
10 2	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed MBR-1(OHT- 10M)	Kohila	Forest Land	180	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
10 3	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed MBR-2	Kohila	Forest Land	90	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	One a
10 4	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed MBR-3	ManjhaD esh	Forest Land	100	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	MBR-3

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
10 5	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Kutwa-1	ManjhaD esh	Forest Land	90	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	SK.Kutiva
10 6	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Dhovi	ManjhaD esh	Forest Land	105	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	SR Dhovi
10 7	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Dhagoot	ManjhaD esh	Forest Land	120	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	SR Dhagoot
10 8	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Paaja Bai	Kohila	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
10 9	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Kohila(OHT- 15M)	Kohila	Forest Land	130	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
11 0	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Juni Bag	Kohila	Forest Land	85	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
11	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Mahogi(OHT- 10M)	Khani	Forest Land	160	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	SR Mahogi (OHT-10)
11 2	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Mohvi	Khani	Forest Land	120	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	SR Mahvi

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
11 3	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Gagani	Khani	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
11 4	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Shigagi	Khani	Forest Land	110	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	TO A COLOR
11 5	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at BhargodKhad	Lajheri	Forest Land	60	30	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	herro were europ
11 6	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed WTP Bharhod	Lajheri	Forest Land	1300	870	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
11 7	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed Pump House Bhargod	Lajheri	Forest Land	100	48	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	pume Al Bhargod khad
11 8	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed MBR-4	Khanag	Forest Land	85	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	MBR 4
11 9	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR GSSS Khang	Lajheri	Forest Land	100	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	# 5SSE Knanag
12 0	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Tilara	Lajheri	Forest Land	100	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
12 1	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at Lohal Nallah	Lajheri	Forest Land	40	20	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	
12 2	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed WTP (Slow Sand Filter) at LohalRiuan	Lajheri	Forest Land	600	485	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth	
12 3	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed SR Mithunu	Lajheri	Forest Land	80	64	Tukda- 1*	imagery FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	mithing and a second se

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
12 4	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed head weir Rectangular Channel & sump at Shoun Nallah	Shaun Nallah	Forest Land	40	20	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a).	Green and the
12 5	MK-9	WSS Khanag, WSS NagotPalli, Parkot&Khadv iKafti in Tehsil Anni Distt. Kullu	Proposed WTP (Slow Sand Filter) at Near SR Khadvi	Buchhar	Forest Land	410	380	Tukda- 1*	FCA Application no. FP/HP/Water/11 4815/2020 for land transfer to JSV is appended in Appendix 4(a). Refer Appendix 6 for revenue records, khasra map records and google earth imagery	
12 6	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed diversion spur on Kurpan Khad	KurpanKh ad	Forest Land	50	30	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	proposed 5 to for Headwise with chareout and purposes MK12
12 7	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed Sumpwell at KurpanKhad	KurpanKh ad	Forest Land	85	12	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	proposed cito for flam filles with charged and purely MA-12

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
12 8	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Water Treatment Plant at Pujarilanj	Remu	Forest Land	4800	4300	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
12 9	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	WTP at Siswaser	Chhati	Forest Land	520	485	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	NUP DIDWADER
13	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed MBR Pujarilanj	Remu	Forest Land	95	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 1	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed MBR Mokutu	Remu	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 2	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Nirmand	Nirmand	Forest Land	100	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
13	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Sarkoti	Sarkoti	Forest Land	190	169	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 4	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Shishvi	Nirmand	Forest Land	90	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 5	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Shanu	Shanu	Forest Land	90	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 6	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Marehri	Marehri	Forest Land	90	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	Proposited SP Mainter)
13 7	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Remu	Remu	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
13 8	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Kedas	Remu	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
13 9	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Bail	Bailal	Forest Land	90	81	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	Eduting S/R Daz
14 0	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Pokhni	Gadej	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	
14	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Achwa	Gadej	Forest Land	80	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	proposed SB Active
14 2	MK- 12	WSS Koli, WSS ShanuJaterh, WSS Bail Dharopa,WSS RemuKedas, WSSChatti	Proposed SR Chhotu	Gadej	Forest Land	90	64	Tukda- 1*	FCA Application no. FP/HP/Water/11 4824/2020 for land transfer to JSV is appended in Appendix 4(a).	Existing S/R Chattly

S N.	Grid	Scheme Name	Project Component	Location/ Village	Ownership	Area of land available at the location (m²)	Area 64equir e (m²)	Khasr a No.	Remarks	Photo of Land
14	MK-	WSS Koli,	Proposed SR	Gadej	Forest	105	81	Tukda-	FCA Application	Existing S/R Koll
3	12	WSS	Koli		Land			1*	no.	No. of London
		ShanuJaterh,							FP/HP/Water/11	The second second
		WSS Bail							4824/2020 for	
		Dharopa,WSS							land transfer to	A CONTRACTOR AND
		RemuKedas,							JSV is appended	
		WSSChatti							in Appendix 4(a).	

^{*}Revenue Records and Khasra Maps are not available for the said Land parcels falling on Forest Land as **No Land Settlement or Marking** has been done for the parcel. The letter certifying the same is attached below.

Source: Site visit, transect walk, Sample survey, DPRs and Technical Documents 2020-2021.

MK-1

Date: 11th October 2021

To Whomsoever It May Concern

The Land for the proposed components in MZ01 (Mandi Zone Package 3 Kullu District), Himachal Pradesh Rural Drinking Water Improvement Project, as mentioned in table 1 belong to Forest department.

The revenue records are not available with the Revenue Department as no land settlement or marking has been done for proposed land parcels mentioned in table 1. Therefore, we are certifying through this letter that the required land areas for proposed rural water supply component are available.

Table 1

SN.	Grid	Scheme Name	Project Component	Name of Forest area	Location/ Village	Area required (m²)
1	MK-1	WSS Samalang	Proposed Intake Chamber	Tiun - III	Teun	16
2	MK-1	WSS Samalang	Proposed SR Samalang	Tiun - III	Teun	64
3	MK-1	WSS Phallan	Proposed Intake Suraggmani	Dugilag- III	Phallan	16
4	MK-1	WSS Phallan	Proposed SR Phallan	Dugilag- III	Phallan	64
5	MK-1	WSS Dughilag	Proposed Intake Nayapani	Dugilag- III	Nayapani	16
6	MK-1	WSS Dughilag	Proposed Intake Chamber Chhaya	Dugilag- III	Chhaya Pani	16
7	MK-1	WSS Dughilag	Proposed Intake Chamber Pawanag	Dugilag- III	Pawanag	16
8	MK-1	WSS Mashna	Proposed Intake Thach Nallah-1	Samana-III	Mashna	16
9	MK-1	WSS Mashna	Proposed SR Shelmail	Samana-III	Mashna	64
10	MK-1	WSS Mashna	Proposed SR Mashegra	Samana-III	Mashna	64
11	MK-1	WSS Mashna	Proposed Intake Chicham	Samana-III	Mashna	16
12	MK-1	WSS Mashna	Proposed Intake Mashna Nallah-1	Samana-III	Mashna	16
13	MK-1	WSS Mashna	Proposed Intake Mashna Nallah-2	Samana-III	Mashna	16
14	MK-1	WSS Mashna	Proposed MBR Gadeshed	Samana-III	Mashna	64
15	MK-1	WSS Mashna	Proposed SR Shamlang	Samana-III	Mashna	64

SN.	Grld	Scheme Name	Project Component	Name of Forest area	Location/ Village	Area required (m³)
			6	Samana-III	Mashna	64
16	MK-1	WSS Mashna	Proposed SR Shertu	Gannano III		
				Samana-III	Mashna	64
17	MK-1	WSS Mashna	Proposed SR Pankuti	Samana-III	manne	
				0 III	Mashna	16
18	MK-1	WSS Mashna	Proposed Intake Chamber Phala	Samana-III	Midailile	

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MK-9

To Whom it May concern

The land for the proposed components in MKD9. (Mandi-Zone Kusu Distr Himachar Predesh) Rural Drinking Water improvement Project, as mentioned in table below, belongs to Forest Department. The revenue records of this table are not available with the revenue department as no land settlement or marking has been done for the proposed land parcels as mentioned in the table below. Therefore, it is certified that the required land area for proposed rural water supply components is available.

Grid	Name of Scheme	Project Component	Name of Forest Area	Location/Village	I in Sign man
MK9	Nagot Park Parket S marri Kata in Tensil Anni Ossi Kata	Proposed head was Rectanguar Charnel & sump well at John Khad	UPF KUTWA C-176	Mear whage Kahar thach	565
		Proposed WTF Jown Fluid	UPF KUTWA G-176	Rear Village Maker	2670
		Proposed Pump House rear Proposed WTP Joan Khad	UPF KUTWA C-176	Near vitage Kallar thach	63.16
		Proposed Pump House near Proposed Sumpwell cum SR in Vitage Manina Desh	UPF KUTWA C-157	Near Village Dhar	48
		SR cum Delivery Taris	OPE KUTWA C-157		m1
		Proposed Purro House Near MBR-1/OHT:	UPF NUTWA C-176	New GSS School Jater	48
		Proposed MBR 1(OHT-10M)	UPF KUTWA C-175	Near GSS School Jaler	81
		Proposed MBR-3	UPF KUTWA C-176	Near Village Thus	64
		Proposed MIR-3	LIPF KUTWA C-176	Near-Vicage Thua	64 64 64
		Proposed SR Kutwa-1	DPF 1/77 BUNG	Near Village Kutwa	64
		Proposed SR Drice	DFF 1/27 BUNG	Village Dichyl	64
		Proposed SR Dragon	DPF 1/27 BUNG	village Claghoot	64 64 8.1
		Proposed SR Page Bar	UPF SHILTHI C177	Neur vidage Sarak	64
		Proposed SR KohnarOHT-15M)	UPF KUTWA C-175	Near visige Nagst	0.1
		Proposed SR Jun Bag	UPF SHILTHI C177	Near village Parkor	64
		Proposed SH Managri CHT-10M)	UPF MATHENA C170	Near village Mottvi	报 专
		Proposed SR Motivi	UPF MATHEMA C170	Near vitage Motor	61 64 81
		Proposed SM Gagani	LPF GAGNI C171	Near visage Gagn	54
		Proposed SH Shigage	LIPE SHAGAGE C 172	New witage Stigage	81
		Proposed head wer flacturgular Channel & sump at Bhargot Khad	UPF ROPA CITAR	Near village Bhargo	150
		Proposed WTP Bharhod	UPF ROPA C-149	Near village Bhargol	970:
		Proposed Pump House Bhargod	UFF ROPA C-14#	Near wilege Bhargol	48
		Proposed MHH-4	UPF ROPA C-149	Near Village Dagsan	64
		Proposes Maria Proposed SR GSSS Khanag	LIFE ROPA CLIMIT	Near OSSS Khanag	NA.
		Proposed Sit Triars	LIPE ROPA C-149	Near Viliage Tilla	at.
		Proposed head was Rectangular Channel & surrop at Lohal Nation	LIFE ROPA C-149	Near Vitage Loter	10.
		Proposed WTP (Slow Sand Filter) at Lonal Ruan	UPF-ROPA C-149	Neat Village Lonal	485
		Proposed SR Minute	UPF ROPA C-149:	Nuar Vilage Mithru	64
		Proposed have ver Rectarquisi Channel & sump at Shoun Natah	UPF KNADVI C 158	Near Vilage Khady	105
		Proposed WTP (Slow Sans) Filter) at Near SR Khady	UPF KHADVI C-158	Near Visage Khadve	380
	9	-kunnyamanananya ya ka	n -O	Total Area	- 0.6373 Hec

Assistate Engineer. Jas Shaku Sub Division Anni, Distr. Kullu (H. P. Naib Tehsildar

Anni Dist. Kullu (H.P.)

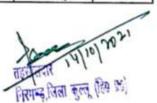
MK-12

To Whomever it may concern

The land for the proposed component in MK 12 Mandi Zone Package 3 Kullu District , Himachal Pradesh Rural drinking water Improvement project , as mentioned in table 1 belong to Jal Shakti Department .

The revenue records are not available with the Revenue department as no settlement or marking has been done for proposed land parcels mentioned in table 1. Therefore we are certifying through this letter that the required land areas for proposed rural water supply components are available.

S.No.	Grid	Scheme Name	Project Component	Name of Forest Area	Location / Village	Area Required m^2
1			Proposed Head Weir with Rectangular channel	UPF - Jimna Dogri	Chail	30
2			Proposed Sumpwell at Kurpan Khad	UPF - Jimna Dogri	Chail	80
3			Water Treatment Plant at Pujarilanj	UPF C-12 Kathanda	Nishani	4300
4	1		Slow sand filter at Siswaser	UPF C-47 Sharshaya	Tunan	485
5		WSS Koli, WSS	Proposed MBR Pujarilanj	UPF C-12 Kathanda	Nishani	81
6		Shanu	Proposed MBR Mokutu	UPF C-48 Jhalu	Twar	64
7	Mk-12	Jaterh, WSS Bail	Proposed SR Nirmand	UPF C-12 Kathanda	Nirmand	81
8	11111	Dharopa,WSS	Proposed SR Sarkoti	UPF C-12 Kathanda	Nirmand	169
9	Ĭ	Remu Kedas, WSS	Proposed SR Shishvi	UPF C-10 Shishvi	Nirmand	81
10		Chatti	Proposed SR Shanu	UPF C-12 Rajouri	Arsu	80
11		1 [Proposed SR Marehri	UPF C-17 Marheri	Twar	81
12		1 [Proposed SR Remu	UPF C-17 Marheri	Twar	64
13	8 8		Proposed SR Kedas	UPF C-17 Marheri	Twar	64
14	0 14		Proposed SR Bail	UPF C-9 Bayal	Gadej	81
15			Proposed SR Pokhni	UPF C-76 Bashlaya	Gadej	64
16	1		Proposed SR Achwa	UPF C-76 Bashlaya	Gadej	64
17	- 1		Proposed SR Chhotu	UPF C-77 Kalog	Gadej	64
18	- 1	Г	Proposed SR Koil	UPF C-77 Kalog	Gadei	81



- 36. Road network in the subproject area are classified as National highways, State Highways, Major district roads, other district roads, village roads and katcha path in case habitations. National highways are generally of 14m of width bituminous road, State highways are generally 8m major district road is generally 6 m in width bituminous road, other district road are of 5m width bituminous road and village roads are generally 3.5m bituminous road or brick roads. As per detailed project report, maximumdia pipes are less than 200mm which can be easily laid within the ROW of the roads.
- 37. As per the indicative alignment, pipelines will primarily traverse one National highway, NH-305 and one State highway, SH 29, at various locations which will be further assessed during the time of DMS. Google Earth Images depicting pipelines traversing through major roads are appended in **Appendix 7**.
- 38. Pipelines will be laid in the vacant right of way of roads which belong to the government. No resettlement impacts, impacts on structures or livelihoods of the people areanticipated. Since the density of housing is low and the houses are spread out, the possibility of access disruptions to houses during pipe laying and house connections are unlikely. Hence, no temporary economic impacts are anticipated due to laying of water supply network.
- 39. Details of proposed Water Supply network, available ROW for roads, dia. And length of pipes are presented in Table 12.

Table 12: Summary of ProposedWater SupplyNetwork

	ruble 12. Cultimary of Froposedivator Supply Network						
S. No.	Details of Network	Length (in meter)	Road Width (in meter)	Dia of Pipe			
1	Total Water Supply Network in Villages	4,49,375	1 m to 12 m				
2	Total Water Supply Network in Major Road– NH305 /SH29	15,100	6 m to 14 m	25 mm to 200 mm			
3	Total Water Supply Network in village roads, transect walks, Kuccha paths, forest trail paths etc	4,34,275	1 m to 4 m				

Source: Preliminary Detailed Project Report, 2020-2021.

40. Grid wise details regarding proposed routes of Rising Mains, Gravity Mains and Distribution Network are presented in Table 13.

Table 13: Grid Wise Details of Proposed Routes for Rising Mains, Gravity Mains and Distribution Networks

Grid	Rising Mains	Gravity Mains	Distribution Network
Giiu	Kisiliy wallis	Gravity Wallis	Distribution Metwork
MK-1	There is no rising main proposed in this grid	Gravity Mains will majorly follow internal district/ village roads usually 4-6 m wide and katcha pathways.	Distribution network will traverse through forest trails, internal district/ village roads and katcha pathways.
MK-2	RM-1: From Source to WTP Bandrol through forest trails RM-2: From PH near WTP Bandrol to MBR Katai forest trails, SH-29 and katcha pathways. RM-3: From proposed MBR Kataito Proposed MBRManjhdhari through forest trials and village road. RM-4: From Source to WTPSeobagh through Katcha pathways. RM-5: From PH near WTPSeobagh to MBR Seobagh forest trails, SH-29 and katcha pathways. RM-6: From Source to WTPBadah through Katcha pathways. RM-7: From PH near WTPBadah to SR Badah forest trails and katcha pathways. RM-8: From Source to WTPJhakru through Forest trails. RM-9: From PH near WTPJhakru to MBRBhrogiinternal district/ village roads, forest trails and katcha pathways. RM-9: From MBR Bhrogito SR Paddarinternal district/ village roads, forest trails and katcha	Gravity Mains will majorly follow internal district/ village roads usually 4-6 m wide and forest trails. No NH/ SH will be crossed or traversed by the proposed RM.	Distribution network will traverse through forest trails, internal district/ village roads and katcha pathways. The proposed Distribution line will cross SH 29 and NH 3 at various places as appended in Appendix 7.

Grid	Rising Mains	Gravity Mains	Distribution Network
MK-6	There is no rising main proposed in this grid	Gravity Mains will traverse through internal district/ village roads (4-6 m wide), Forest Trails and Katcha pathways. No NH/ SH will be crossed or traversed by the proposed GMs.	Distribution lines will traverse through internal district/ village roads (4-6 m wide), Forest Trails and Katcha pathways. No NH/ SH will be crossed or traversed by the proposed DN.
MK-7	RM-1: From proposed Sourceon TirthanKhad to WTP Shida. The RM will traverse through katchpathways. RM-2: From WTP/ PH to Sumpwell cum SR at Padhola through forest trails andkatcha pathways. RM-3: From WTP/ PH to Sumpwell cum SR at Padhola to MBR Jauri through forest trails andkatcha pathways. No NH/ SH will be crossed or traversed by the proposed RMs.	Gravity Mains will traverse through, internal district/ village roads and Katcha pathways. GM from SRDhandhar to SR Manglore will cross the Bridge with NH 305.	Distribution lines will traverse through NH 305 (appended in Appendix 7), internal district/ village roads and Katcha pathways.

Grid	Rising Mains	Gravity Mains	Distribution Network
MK-9	RM-1: From proposed Sourceon Joan Khad to WTP Joan Khad. The RM will traverse through Forest Trails. RM-2: From WTP/ PH to MBR-1 through forest trails, Village road andkatcha pathways. RM-3: From MBR-1 to MBR-2 through forest trails andkatcha pathways. RM-4: From WTP/ PH to Sump well cum SR in village Manjhadeshthrough forest trails, andkatcha pathways. RM-5: From Sump well cum SR in village Manjhadeshto MBR-3 through forest trails, andkatcha pathways. RM-6: From proposed sourceon BhargodKhad to WTP Bhargod. The RM will traverse through Forest Trails.	Gravity Mains will traverse internal district/village roads and Katcha pathways. The proposed Distribution line will cross SH 11 and NH 305 at various places as appended in Appendix 7.	Distribution lines will traverse through SH 11 and NH 305 (appended in Appendix 7), internal district/ village roads and Katcha pathways.
	RM-7: From proposed WTP Bhargod to MBR-4. The RM will traverse through Forest Trails, katcha path and will cross SH-11.		
MK-12	There is no rising main proposed in this grid	Gravity Mains will traverse SH-28, internal district/ village roads and Katcha pathways.	Distribution lines will majorly follow internal district/ village roads, SH-28 and katcha pathways.

Source: Preliminary Detailed Project Report, 2020-2021.

- 41. Sample Survey of Indicative Pipeline Alignment at Various Locations in MZ01 and of Market Places with Google Earth Maps and Site Photographs are appended in **Appendix 9** respectively.
- 42. Keeping this in view, physical verification/field observations/ sample survey were made in the subproject area to assess if existing available ROW of government roads and the road width/Row is sufficient, and if avoidance or involuntary resettlement impact is possible or not. Based on site visit observations, no loss of structure and common property resources (CPR)or any other involuntary resettlement impact is anticipated under the subproject.
- 43. Photographs of Major Roads, Internal district roads, forest trails and kaccha pathways leading to the Proposed Pipelines routes along with Pipe dia, Pipe material and Width are presented in Table 14.

Table 14: Photographs of MajorRoads, Internal district roads, forest trails and kaccha pathways leading to the Proposed Pipelines routes

	routes					
S. No	Name of Area	Road width	Dia	Pipe Material	Photographs	
1	Seobagh Road near marketplace 1	6-8 meter	150-200 mm	HDPE/ GI		
2	Seobaghmarg near marketplace 2	4-6 meter	50-150 mm	HDPE/ GI		

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
3	SH 29 near market place	6-8 meter	100-200 mm	HDPE/ GI	
4	SH 29 at junction	6 meter	100-150 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
5	Unnamed Road near Kais	4 meter	50-100 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
6	Salangh Project Road	4-6 meter	50-150 mm	HDPE/ GI	
7	Unnamed village path	1-3 meter	40-80 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
8	Unnamed Village Road	4meter	25-65 mm	HDPE/ GI	
9	Unnamed Village Road	6meter	50-150 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
10	Unnamed Forest Trail/ Kaccha Path	1-2 meter	25-50 mm	HDPE/ GI	
11	Unnamed Kaccha Road	1-2 meter	50-100 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
12	Unnamed forest trail/ Kaccha Path	1-2 meter	50-100 mm	HDPE/ GI	
13	Unnamed Kaccha Path	1-2 meter	50-100 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
14	Unnamed Kaccha Path	1-2 meter	25-100 mm	HDPE/ GI	
15	Unnamed Forest Trail	1-2 meter	25-100 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
16	Unnamed Forest Trail	1-3 meter	25-100 mm	HDPE/ GI	
17	Unnamed Forest Trail	1-2 meter	25-40 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
18	Unnamed Forest Trail	1-2 meter	25-50 mm	HDPE/ GI	Proposed allgrighest Rising these
19	Unnamed Road	2-3 meter	50-100 mm	HDPE/ GI	

S. No	Name of Area	Road width	Dia	Pipe Material	Photographs
20	Unnamed Kaccha path	1-2 m	50-80 mm	HDPE/ GI	
21	Unnamed Kaccha path	1-2 m	25-50 mm	HDPE/ GI	

Source: Site Visits, Transect walks and Preliminary Detailed Project Report, 2020-2021.

Details of proposed Rising Mains from proposed water pumping stations along with photograph of nearby area re presented in table 15.

Table 15: Photographs of Rising Main for the Water Pumping Station

S.	Name	WTP	RM	RM	Location	Design	Length	Dia of	Road	Photograph of the nearby
No.		Capacit y	Starting Point	Ending Point		Velocity in RM	of Pumping Main	pipe	Width	area
1	Grid MK2 RM from proposed borewell to proposed WTP Bandrol	366 KLD	Borewell	Raw Water tank at Proposed 366 KLD WTP	In Village Kais	0.73 m/s	204 m	100 mm	1-2 m katcha pathway	
2	Grid MK-2 RM from proposed WTP Bandrol to proposed MBR Katai	366 KLD	Clear Water tank at Proposed 366 KLD WTP	MBR Katai	In Village Kais	0.73 m/s	2447 m	100mm		

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
3	Grid MK-2 RM from Pump proposed MBR Katai to proposed MBR Manjhdha ri	366 KLD	Proposed MBR Katai	Proposed MBR Manjhdha ri	In Village Kais	0.76 m/s	1275m	65mm	1 to 3 meter	
4	Grid MK-2 RM from Proposed Borewell to Proposed WTP Seobagh	220 KLD	Borewell	Raw Water tank at Proposed 220 KLD WTPSeob agh	In Village Kais	0.69 m/s	78m	80mm	3-4 meter road	proposed site for bore well, W.T.C. at one of his Section site.

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
5	Grid MK-2 RM from Pump house near proposed WTPSeob aghto Proposed MBR Seobagh	220 KLD	Clear Water tank at Proposed 220 KLD WTP Seobagh	Proposed MBR Seobagh	In Village Kais	0.69 m/s	1627m	80mm	2-4 meter	
6	Grid MK-2 RM from Proposed borewell Badah to proposed WTP Badah	427 KLD	Proposed borewell	Proposed WTP	In Village Badah	0.86 m/s	123 m	100mm	1-3 meter	

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
7	Grid MK-2 RM from Pump house near WTP Badah to proposed SR Badah	427 KLD	PH Badah	Proposed SR Badah	In Village Badah	0.85 m/s	1407m	100mm	1 to 3 meter	
8	Grid MK-2 RM from proposed borewell JhakruMo halKhad to proposed WTP	75 KLD	Proposed borewell	Proposed WTP	In village Mohal	0.59 m/s	88	50mm	1-2 kaccha path	

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
9	Grid MK-2 RM from proposed PH near WTP Jhakru to proposed MBR Bhrogi	75 KLD	Proposed PH Jhakru	Proposed MBR Bhrogi	Village Mohal	0.59 m/s	1644 m	50 mm	2-3 m wide	
10	Grid MK-2 RM from proposed MBR Bhrogi to existing SR Padhar	75 KLD	Proposed MBR Bhrogi	Existing SR Padhar	Village Mohal	0.61 m/s	1286m	50mm	1 to 2 meter	MBR VILLAGE BAROGI
11	Grid MK-7 RM from Proposed Diversion Spur, at Tirthanto Proposed WTP Shida	700 KLD	Proposed Diversion Spur	Proposed WTP Shida	In Village Ratwah	0.85 m/s	230m	100mm	1 to 2 meter	

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
12	Grid MK-7 RM from Proposed PH Shidato proposed Sumpwell cum SR at 2 nd stage Padhola	1.1 MLD	Proposed WTP Shida	Proposed Sumpwell cum SR at 2 nd stage Padhola	In Village Samnos	1.09 m/s	1946m	125mm	2 m wide	Proposed Bill (edge of Annie) Proposed
13	Grid MK-7 RM from proposed Sumpwell cum SR at 2nd stage Padhola to proposed MBR Jauri	1.1 MLD	Proposed Sumpwell cum SR at 2 nd stage Padhola	Proposed MBR Jauri	In Village Chakurth a	1.05 m/s	2441 m	125mm	2 m wide	Jour
14	Grid MK-9 RM from Proposed Diversion Spur at Joan Khad at Tirthan to Proposed WTP Joan Khad	900 KLD	Proposed Diversion Spur at Joan Khad	Proposed WTP Joan Khad	In Village Kohila	0.746 m/s	65m	125mm	2 m wide	head wear WTP pump house at Jaon khad

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
15	Grid MK-9 RM from Proposed WTP Joan Khad to proposed MBR-1 (OHT- 10m)	900 KLD	Proposed WTP Joan Khad	Proposed MBR-1 (OHT- 10M)	In Village Kohila	0.817 m/s	1357 m	125mm	2 m wide	Market 10 kel 1
16	Grid MK-9 RM from proposed MBR-1 (OHT-10m) to proposed MBR-2	900 KLD	Proposed MBR-1 (OHT-10M)	Proposed MBR-2	In Village Kohila	0.655 m/s	944 m	100mm	2 m wide	
17	Grid MK-9 RM from Proposed PH near WTP JaonKhad to proposed Sumpwell cum SR	900 KLD	Proposed PH near WTP JaonKhad	Proposed Sumpwell cum SR	In Village Kohila	0.825 m/s	2022 m	50mm	2 m wide	head wear' WTP pump house at Jaon khad

S. No.	Name	WTP Capacit y	RM Starting Point	RM Ending Point	Location	Design Velocity in RM	Length of Pumping Main	Dia of pipe	Road Width	Photograph of the nearby area
18	RM from Proposed PH near proposed Sumpwell cum SR to proposed MBR-3	900 KLD	Proposed PH near proposed Sumpwell cum SR	proposed MBR-3	In Village ManjhaDe sh	0.626 m/s	2480 m	50mm	2-3 m wide	pump house wemp well in vinues manuades
19	Grid MK-9 RM from Proposed Head weir, rectangul ar channel, sump at Bhargolkh ad to proposed WTP Bhargol	200 KLD	Proposed Head weir, rectangular channel, sump at Bhargolkha d	Proposed WTP Bhargol	In Village ManjhaDe sh	0.615 m/s	64 m	65mm	2-3 m wide	Head wear sump
20	Grid MK-9 RM from proposed WTP Bhargol to Proposed MBR-4	200 KLD	Proposed WTP Bhargol	Proposed MBR-4	In Village Lajheri	0.615 m/s	1787 m	65mm	2-3 m wide	MBR 4

Source: Site Visits, Transect walks and Preliminary Detailed Project Report, 2020-21.

- 45. During transect walk, it was also observed that in a few locations where pipe laying is proposed through forest, the trial/walkway are narrow (width varies from 1 m to 2m) and where pipe laying is proposed through internal village roads/kachha path, the walkway are compact (width varies from 2m to 6m). The water supply pipelines are proposed primarily in the village which is predominantly residential in nature. The population living in these areas is from low to middle income groups. At present, the proposed areas have some pipe water supply infrastructure which is over 20 years old with several leakages and damages. Most of the said infrastructure will be replaced and few components will be rehabilitated/ retrofitted based on their present condition. The owner of all the components will be Jal Shakti Vibhag (JSV).
- 46. The meeting and discussion made with the design team confirmed that no trenchless work will be taken up in the above-mentioned areas and will be further confirmed during DMS. In case of narrow roads to avoid inconvenience to the householdsand people using the roads/pathways on regular basis. The depth of the pipe is fixed at 0.6 m or 2 feet for all diameter and length of pipe. The works will be taken up with all safety provisions both for the local community and labour. Extensive consultations will be carried out with the residents and they will be informed prior to the start of civil works. Construction/civil works during nnight-time work may also be opted for busy sections, if any with prior permission, stakeholder consultation and noise control measures. House connections will be provided in this subproject and can be carried out without any major access disturbance.
- 47. Pipelaying works are proposed in areas with no or low traffic load, hence, impact on traffic is anticipated to be minimal. The construction will be undertaken on one side of the road first and on completion of the same, start work on the other side to minimize impact on traffic. The pipe laying and alternative traffic routing will be assessed in advance and the contractor will be required to provide signages as per site specific requirement. The contractor will also ensure access to residences using simple wooden/concrete walkways where required and minimize the excavation beyond road length of 500 m at a time and refill the excavated area within the stipulated timeline. Construction contracts will include the above provisions.
- 48. **Indigenous Peoples.**No land acquisition or involuntary resettlement impacts are assessed as result of the subproject. MZ-01 is not located in a scheduled area⁴as per Government of India 2018 notification. The Package has a small proportion of population (2.78%) classified as scheduled tribe,⁵which is scattered (does not stay in tribal groups/community enclaves), is well-assimilated in society in the subproject areas and does not retain the characteristics of scheduled tribes or indigenous peoples⁶ groups. No impact on indigenous people/communities, involving direct or indirect impact to the dignity, human rights, livelihood systems or territories or natural or cultural resources that are used, owned, occupied or claim, is anticipated.

5 "Scheduled tribes (scheduled tribes) are those communities notified as such by the President of India under Article 342 of the Constitution. The first notification was issued in 1950. Criteria followed for specification of a community as a scheduled tribe are (i) tribes' primitive traits; (ii) distinctive culture; (iii) shyness with the public at large; (iv) geographical isolation; and (v) social and economic backwardness before notifying them as a scheduled tribe."1 Sources :https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1514486, https://vikaspedia.in/social-welfare/scheduled-tribes-welfare/scheduled-tribes-in-indianttrps://ncst.nic.in/sites/default/files/2017/Office Order/798.pdf

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ADB SPS 2009 uses the term indigenous peoples in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats or territories; (iii) customary cultural, economic, social or political institutions that are separate from those of the dominant society and culture; and (iv) a distinct language, often different from the official language of the country or region.

Table 16: Scheduled Tribe (ST) Population MZ01 (Mandi Package-3)

Grid	ST Population	Total Population of the Command Area	Percentage %
MK1	6	2840	0.21
MK2	778	8573	9.08
MK6	44	2274	1.93
MK7	10	5983	0.17
MK9	61	6993	0.87
MK12	92	8950	1.03
Total	991	35613	2.78

Source: NRDWP website

VI. INFORMATION DISSEMINATION

49. The DDR will be made available for reference in the offices of the Jal Shakti Vibhag, Project Implementation Unit, Project Management Unit and ADB website for easy access to all stakeholders including the local community of Himachal Pradesh. Public awareness campaigns within the entire project area will ensure that awareness on grievance redress procedures is generated. The Social Safeguards and Gender Officer PMU supported by PDMSC, will oversee the conduct of project coverage area-based awareness campaigns by the Safeguard Nodal Officer of concerned PIUs. The awareness campaigns will ensure that poor and vulnerable households are made aware of grievance redress procedures. Contractors will provide pamphlets to communities prior to start of works and information Boards during construction. The pamphlets and information boards will include relevant environmental and social safeguards, GRM information, and contact details of key personnel from PIU and contractors.

VII. CONCLUSION

- 50. The findings from field visit, sample survey, public consultation and stakeholder consultations and initial screening for involuntary resettlement and indigenous people impacts, suggest that the subproject is not anticipated to cause any permanent or temporary, direct or indirect, impacts. Nevertheless, the impacts of the subproject will be reassessed during finalization of detailed design (assessment of alternatives, final sites and alignments and scope of work), the social safeguards document updated and ADB's clearance obtained prior to commencement of civil works. In case any involuntary resettlement impact is identified at any stage of the subproject implementation, this safeguard document will be revised with appropriate revision of project category in accordance with ADB's safeguard Policy Statement, 2009.
- 51. The written consents from 10 private landowners who are donating land voluntarily have been obtained and appended in the **Appendix 5**. The information of the voluntary land donors is mentioned in the same Appendix.
- 52. The 28 respective Gram Panchayats have provided No Objection as well as certification of ownership of the ROW of Panchayat roads where laying pipelines are proposed. The documents are appended in Appendix 4 (d).

- 53. Laying the pipelines may potentially cause temporary disruption to road users, pedestrians and community people this will be avoided by using proper mitigation measures. Such civil work disruptions will be mitigated during construction by the contractor through simple measures such as provisions of planks for pedestrian access to shops and proper traffic management.
- 54. It needs to be mentioned that during laying of pipelines along market/village areas or congestedplaces within the Blocks, if any potential access disruptions are identified, the civil works contract for Mandi Zone Package-3 (MZ-01) will have specific provisions related to impact avoidance for pipe laying activities as well as construction work near common property resources (schools, health centers, ICDS Centers, etc.).
- 55. The works contractor will be required to maintain access to shops and residences or other buildings along pipe alignments and to institutions located close to proposed sites, and safety through hard barricading of excavated alignments/sites. Care will be taken to avoid/mitigate economic impacts through the following measures: (i) announcement of proposed civil works in advance (to enable shop owners to stock up and remain unaffected if goods vehicles are unable to reach them during construction);(ii) provision of planks to ensure pedestrian access; (iii) careful timing of implementation to avoid peak sale hours/days or school timings; (iv) night work in commercial areas, where possible; (v) minimizing construction period to the extent possible; (vi) assistance to mobile vendors if any present during construction, to shift nearby; (vii) signage with project details and contact details for grievance redress; and (viii) proper traffic management; (ix) Notice to harvest standing seasonal crops and if notice cannot be provided compensation for affected Crops/plants and trees to be provided at market rate; Work schedule will avoid harvest season and Harvesting prior to pipe laying will be ensured to the extent possible. These measures will be part of the contract and will be implemented through it, with careful monitoring by the concerned PIU.
- 56. JSV may informally offers through its contractors, one operation related job per site obtained through Voluntary Land Donation, to any one member of the households of land donor, jointly nominated by them.
- 57. To further minimize the possibility of construction impacts, work will be executed during the early morning hours in order to avoid inconveniences to the public and business activities. All safety norms would strictly be adhered to and the Project Implementation Unit (PIU) will also ensure that all the necessary compliances are observed by the contractor. The actual dates of construction schedule will consider rush hour, festival time, and special business days will be discussed with committee members, and residents, and accordingly, construction activities will be planned. After laying pipes, the lane/road will be restored to its original condition or improved condition (including bitumen, cement concrete and interlocking tiles as applicable).
- 58. Abudgetary provision will be made for costs likely to be incurred by JSV for completion of all formalities related to land donation, Direct Negotiation Land Purchase and updating of this DDR. This includes provisions towards DDR updating cost, consultation, communication grievance redress mechanism and contingencies.
- 59. During consultations, the Voluntary Land Donors conveyed their willingness to donate their land parcels for the project that will benefit the community with safe drinking water. They themselves showed concern over the present quality of drinking water they consume and appreciated government's effort of disturbing clear and treated water.

VIII. NEXT STEPS

- 60. Detailed measurement surveyswill be conducted during and after finalization of the detailed design. In case any involuntary resettlement impacts identified, this due diligence report will be updated accordingly including the revision of project impact category and will be submitted to ADB for approval before start of civil works.
- 61. During the DMS, if any involuntary resettlement impact is identified, a resettlement plan would be prepared.
- 62. Formal and informal consultations will be carried out including, but not limited to: focus group discussions (FGDs), public meetings, community discussions, and in-depth and key informant interviews. Intensive information dissemination campaign will be conducted. The updated DDR will include details of such consultations.
- 63. Process followed in independent third-party certification, documentation of acceptability of third party to both JSV and the land owners.DDR will be updated with third party certification.
- 64. The certificate issued by the third party for the project proponent will confirm the following: (a) that no coercion was involved in the process, and (b) The third party will submit a certificate as witness to the Land Donation process as well as assistance provided. The third-party certificate needs to be appended to the updated DDR at the time of DMS;
- 65. On completion of Land Donation, the land parcels need to be transferred to JSV's ownership and the document of ownership will be appended in the updated DDR;
- 66. Copies of Land Records/ NOCs from the concerned departments and Land transfer documents of all components will be appended in the updated DDR prior to contract award.
- 67. Required NOCs for laying of pipeline from Forest Department/ PWD/ NHAI will be included in the updated DDR.
- 68. Land area related information for proposed project components will be appended in the updated DDR prior to contract award.
- 69. Gift deeds executed by the land donors will be included in the updated DDR.
- 70. Consultation with remaining one (1) land donor to be included in the updated DDR prior to contract award.

Appendix 1: Grid Wise Population Projection in MZPK-2

Grid MK-1

Sr. No.	Name of Scheme	Name of	Name of	IVITX- I		Popu	lation		
01.110.	Name of ocheme	Village	Habitation	2011	2019	2022	2032	2042	2052
1	Wssgramang	Gramang	Gramang	203	224	231	257	282	308
2	Wsssamalang	Teun	Samalang	136	150	155	172	189	206
3		Phallan	Jindi	331	365	377	418	460	501
4	Wssphallan		Liani	116	128	132	147	161	176
5			Phallan	100	110	114	127	139	152
6			Dogri	42	47	48	54	59	64
7			Gadeshed	119	131	136	151	166	180
8			Karashang	87	96	99	110	121	132
9			Mashegra	63	70	72	80	88	96
10	\\/		Mashna	93	103	106	118	130	141
11	Wssmashna	Mashna	Pankuti	11	13	13	14	16	17
12			Samilang	23	26	27	30	32	35
13			Shelmail	54	60	62	69	75	82
14			Shertu	13	15	15	17	19	20
15			Thach	105	116	120	133	146	159
16	NAZ - Level Herrel H. P.	Decel No.	Shildhari	150	165	171	190	209	227
17	Wssdughilagshildhari	Dughilag	Dughilag	928	1021	1056	1172	1288	1404
	То	2574	2840	2934	3259	3580	3900		

Source: Detailed Project Report, 2020-2021.

Grid MK-2

On No	Oakawa wasa	None of Village	Name of Helpiteties			Popu	lation		
Sr. No.	Scheme name	Name of Village	Name of Habitation	2011	2019	2022	2032	2042	2052
1			Dhara	104	115	119	132	145	158
2	WSS DharaGhot		Ghot	206	227	235	261	286	312
3	WSS DilaiaGilot		Ukhala age	477	525	543	603	662	722
4			Sharn age	398	438	453	503	553	602
5			Kais	1620	1782	1843	2046	2248	2451
6	WSS KaisBishtbeher		Purana kais	354	390	403	447	492	536
7	W55 Kaisbishiberiei		Bishtabehar	228	251	260	288	317	345
8			Kotage	541	596	616	684	751	819
9			Soil	237	261	270	300	329	359
10			Banoni	245	270	279	310	340	371
11			Padru	200	220	228	253	278	303
12			Sour	620	682	706	783	861	938
13			Khararsu	463	510	527	585	643	701
14			Rougi	2136	2350	2430	2697	2964	3231
15		Kais	Manjhdhari	480	528	546	606	666	726
16			Kholtu	298	328	339	377	414	451
17	WSS Soul Sour Karadsu		Kalamidhar	130	143	148	165	181	197
18			Foshni	99	109	113	125	138	150
19			Tandla	213	235	243	269	296	323
20			Chogin	561	618	639	709	779	849
21			Katai	189	208	215	239	263	286
22			Romani	249	274	284	315	346	377
23			Gaduaidev	327	360	372	413	454	495
24			Bhalogi	796	876	906	1005	1105	1204
25			Kotadhar	488	537	556	617	678	739
26			Hawai	17	19	20	22	24	26
27	WSS Seobag		Seobagh	1260	1386	1434	1591	1749	1906
28	พงอง จะบมส่ง		Dhaloginala	361	398	411	456	501	547
29			Rongribagh	41	46	47	52	57	63

Cr. No.	Scheme name	Name of Village	Name of Habitation	Population						
Sr. No.	Scheme name		Name of Habitation	2011	2019	2022	2032	2042	2052	
30			Banougi	332	366	378	420	461	503	
31			Farmeh	159	175	181	201	221	241	
32			Suiropa	28	31	32	36	39	43	
33	MCC Ob a sharraMallage		Chachoga	200	220	228	253	278	303	
34	WSS ChachogaMalhar		Malahar	521	574	593	658	723	789	
35		Darahar	KhunaliKhalyani	130	143	148	165	181	197	
36	MCC Canada Kalibahan	Barahar	Padhar	84	93	96	107	117	128	
37	WSS Sarach, Kolibehar, Badah&KhalyaniPadhar		Badah	3242	3567	3688	4094	4499	4904	
38	Dauanakinalyaniraunai	Balh	BhunlaSarach	237	261	270	300	329	359	
39			Kolibehar	110	121	126	139	153	167	
	Grand total				20233	20925	23226	25521	27821	

Source: Detailed Project Report, 2020-21.

Grid MK-6

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Sr. No.	Name of Scheme	Name of Village	Name of Habitation	Population							
		village		2011	2019	2022	2032	2042	2052		
1			Arooseri	15	17	18	19	21	23		
2			Bandalunala	20	22	23	26	28	31		
3			Dabhachan	206	227	235	261	286	312		
4	WSS NeenuJaistha	Parli	Deuribai	25	28	29	32	35	38		
5			Sharaage	10	11	12	13	14	16		
6			Jaishtha	575	633	655	726	798	870		
7			Neenu	232	256	264	293	322	351		
8			Bandal	126	139	144	160	175	191		
9	WSS	Dhallan	Chirpana	18	20	21	23	25	28		
10	NarolGarsaDhara	Bhallan	Damrogi	78	86	89	99	109	118		
11			Dhara	293	323	334	370	407	444		

Sr. No.	Name of Scheme	Name of	Name of Habitation	Population						
			Village		2011	2019	2022	2032	2042	2052
12				Dugh	32	36	37	41	45	49
13				Garsa	118	130	135	149	164	179
14				Naroul	47	52	54	60	66	72
15				Neol	175	193	200	221	243	265
16				NoutodNiul	25	28	29	32	35	38
17]			Ruad	66	73	76	84	92	100
	Total		2061	2274	2355	2609	2865	3125		

Source: Detailed Project Report, 2020-2021.

Grid MK-7

Sr. No.	Name of Scheme	Name of Village	Name of Habitation	Population						
		village	Habitation	2011	2019	2022	2032	2042	2052	
1			Jamala	139	153	159	176	193	211	
2			Sarachi	100	110	114	127	139	152	
3			Sarachi 1	253	279	288	320	352	383	
4	1		Busari	42	47	48	54	59	64	
5		Sarachi	Talihar	49	54	56	62	68	75	
6			Jhutli	143	158	163	181	199	217	
7			Shiyanshadu	45	50	52	57	63	69	
8	WSS		Bandhal	332	366	378	420	461	503	
9	SarchiBandalArkhaliPhagwana		Gahi	50	55	57	64	70	76	
10			Gushani	82	91	94	104	114	125	
11			Chakurtha	181	200	206	229	252	274	
12			Kahu Dhar	157	173	179	199	218	238	
13		Chakurtha	Phagwana	226	249	258	286	314	342	
14		Chakurtha	Nauli	30	33	35	38	42	46	
15			Ondhar	52	58	60	66	73	79	
16			Kachidhar	25	28	29	32	35	38	

Sr. No.	Name of Scheme	Name of	Name of			Popu	lation		
		Village	Habitation	2011	2019	2022	2032	2042	2052
17			Hurla	66	73	76	84	92	100
18			Shamadi	39	43	45	50	55	59
19			Chachigad	19	21	22	24	27	29
20			Arkhali	54	60	62	69	75	82
21			Kharal	60	66	69	76	84	91
22			Chachigad 2	19	21	22	24	27	29
23			Ghorali	44	49	51	56	62	67
24			Padhola	40	44	46	51	56	61
25			Thati Bir	99	109	113	125	138	150
26			Ganiyuli	117	129	134	148	163	177
27			Kaluchi	83	92	95	105	116	126
28			Shieeha	10	11	12	13	14	16
29			Narauli	98	108	112	124	136	149
30			Patola	80	88	91	101	111	121
31			DharaTkala	112	124	128	142	156	170
32			Ghmeer	36	40	41	46	50	55
33			Shaila	124	137	142	157	173	188
34		Thati Bir	Chiludhar	12	14	14	16	17	19
35		I IIali bii	Breri	31	35	36	40	44	47
36			Patari	18	20	21	23	25	28
37			Banaur	11	13	13	14	16	17
38			ThatiBir 2	23	26	27	30	32	35
39			Siyarani	10	11	12	13	14	16
40			Banaseri	15	17	18	19	21	23
41			Shailindra	49	54	56	62	68	75
42			Badhaul	54	60	62	69	75	82
43			Shaila 2	124	137	142	157	173	188
44			Kathiyara	11	13	13	14	16	17

Sr. No.	Name of Scheme	Name of	Name of			Popu	lation		
		Village	Habitation	2011	2019	2022	2032	2042	2052
45			Sukari Bir	87	96	99	110	121	132
46			Nalasari	35	39	40	45	49	53
47			Barnaal	60	66	69	76	84	91
48			Kathayar	60	66	69	76	84	91
49			Jhunjhon	35	39	40	45	49	53
50	WSS Seraj in Tehsil Banjar		Chunahare	309	340	352	391	429	468
51	Distt. KulluH.P		Chahadi	52	58	60	66	73	79
52			Palicha	86	95	98	109	120	131
53			Pattan	60	66	69	76	84	91
54		Seeraj	Alwah	314	346	358	397	436	475
55			Ratwah	109	120	124	138	152	165
56			Kanderi	150	165	171	190	209	227
57		Ratwah	Manjan	63	70	72	80	88	96
58			Bihali	33	37	38	42	46	50
59			Manglor	222	245	253	281	309	336
60	WSS Thatibir, Targali&		Dhandhar	83	92	95	105	116	126
61	Manglore etc. in Tehsil Banjar Distt. Kullu H.P.		Shaludy	96	106	110	122	134	146
62	,		Shida	58	64	66	74	81	88
63			Jaul	78	86	89	99	109	118
64			Bhunka	26	29	30	33	37	40
65			Bira Ratwah	11	13	13	14	16	17
66			Shida 2	23	26	27	30	32	35
	1.11.15.1.15.1.0000.04	Total		5414	5983	6193	6866	7546	8217

Source: Detailed Project Report, 2020-21.

Grid MK-9

0	Oakama Nama	\ <i>P</i> .III = =	Grid MK-9			Populat	ion		
S. no	Scheme Name	Village	Habitation	2011	2019	2022	2032	2042	2052
			Bagicha	37	41	43	47	52	56
			Bandal	69	76	79	88	96	105
			Barothi	79	87	90	100	110	120
			Barvi	26	29	30	33	37	40
			Chamunger	25	28	29	32	35	38
			Charmatan	105	116	120	133	146	159
			Chohni	53	59	61	67	74	81
			Chowki	37	41	43	47	52	56
			Dabar	16	18	19	21	23	25
			Daber	37	41	43	47	52	56
			Dhamar	75	83	86	95	105	114
			Fater	21	24	24	27	30	32
			Gagni	93	103	106	118	130	141
1	WSS KhunBandalJadar	Khani	Glai	21	24	24	27	30	32
'	Woo Midibalidaldadal	Man	Gunamar	62	69	71	79	87	94
			Jadar	63	70	72	80	88	96
			Kadelar	15	17	18	19	21	23
			Karerh	74	82	85	94	103	112
			Karmerh	47	52	54	60	66	72
			Katoli	63	70	72	80	88	96
			Khanevi	73	81	84	93	102	111
			Khun	50	55	57	64	70	76
			Mathena	13	15	15	17	19	20
			Matherla	63	70	72	80	88	96
			Mohvi	101	112	115	128	141	153
			Natherla	42	47	48	54	59	64
			Pavi	100	110	114	127	139	152
			Raher	107	118	122	136	149	162

0	Calcarra Nama	Villago	Habitatia			Populat	ion		
S. no	Scheme Name	Village	Habitation	2011	2019	2022	2032	2042	2052
			Raibag	67	74	77	85	93	102
			Shigagi	213	235	243	269	296	323
			Thakrerh	82	91	94	104	114	125
			Tharmi	30	33	35	38	42	46
			Shup	34	38	39	43	48	52
			Tipdhar	22	25	26	28	31	34
			Chakali	52	58	60	66	73	79
			Chakler	68	75	78	86	95	103
			Dharali	90	99	103	114	125	137
0	MOO Namado III	IZ = = !! =	Katobi	21	24	24	27	30	32
2	WSS NagotPalli	Kohila	Nagerh	72	80	82	91	100	109
			Jaterh	138	152	157	175	192	209
			Kutwa	85	94	97	108	118	129
			Rager	66	73	76	84	92	100
			Tipper Arn	58	64	66	74	81	88
			Kuichimati	45	50	52	57	63	69
			Kamand	144	159	164	182	200	218
			JaonArn-li	10	11	12	13	14	16
			Khoanal	3	4	4	4	5	5
			Odidhar	14	16	16	18	20	22
			Sougigaon	34	38	39	43	48	52
			Dharot	18	20	21	23	25	28
3	WSS ParkotKamand	Kohila	Sarali	61	68	70	78	85	93
			Chalohan	77	85	88	98	107	117
			Dharalijan	104	115	119	132	145	158
			Parlidhar	190	209	217	240	264	288
			Bhatnibai	38	42	44	48	53	58
			Shershpana	34	38	39	43	48	52
			Banigad	40	44	46	51	56	61

0	Oakama Nama	V/III	Habitatian			Populat	ion		
S. no	Scheme Name	Village	Habitation	2011	2019	2022	2032	2042	2052
			Dofti	24	27	28	31	34	37
			Thachel	24	27	28	31	34	37
			Gadgari	68	75	78	86	95	103
			Kafti	14	16	16	18	20	22
4	WSS KhadviKafti	Buchhar	Khadvi	151	167	172	191	210	229
4	WSS Kliadvikaiti	buchnar	Sarat	16	18	19	21	23	25
			Nali	86	95	98	109	120	131
			Agudhar	18	20	21	23	25	28
			Banala	118	130	135	149	164	179
			Banibeel	21	24	24	27	30	32
			Banidhar	25	28	29	32	35	38
			Bargol	85	94	97	108	118	129
			Bhargol Gad	10	11	12	13	14	16
			Bharti Gad	30	33	35	38	42	46
			Charmohal	46	51	53	59	64	70
			Chiulamb	52	58	60	66	73	79
			Darnudhar	10	11	12	13	14	16
5	WCC Khanas		Deopunj	15	17	18	19	21	23
5	WSS Khanag	Lajheri	DharaMor	48	53	55	61	67	73
			Dhingchu	25	28	29	32	35	38
			Dogri	40	44	46	51	56	61
			Dogri Dhar	51	57	59	65	71	78
			Dora Nal	16	18	19	21	23	25
			Jakuna	14	16	16	18	20	22
			Jaon	214	236	244	271	297	324
			Jharonu	40	44	46	51	56	61
			Jora Gad	25	28	29	32	35	38
			Kanda	135	149	154	171	188	205
			Khadar	15	17	18	19	21	23

C	Cahama Nama	Village	Habitatian			Populat	ion		
S. no	Scheme Name	Village	Habitation	2011	2019	2022	2032	2042	2052
			Khanag	147	162	168	186	204	223
			Khaopat	31	35	36	40	44	47
			Khori	27	30	31	35	38	41
			Lohal	196	216	223	248	272	297
			Mithnu	42	47	48	54	59	64
			Saran	30	33	35	38	42	46
			Seo Dhar	19	21	22	24	27	29
			Sharogi	23	26	27	30	32	35
			Swagi	12	14	14	16	17	19
			Tanga Nal	15	17	18	19	21	23
			Tilra	42	47	48	54	59	64
			Tilra Sow	10	11	12	13	14	16
			Tungra Dhar	30	33	35	38	42	46
			Chanog	129	142	147	163	179	196
			Daghoot	93	103	106	118	130	141
			Dhar	62	69	71	79	87	94
			Ghanair	54	60	62	69	75	82
			Kutwa 1	116	128	132	147	161	176
	WCC Durch a Chicagai	ManihaDaah	Loharla	58	64	66	74	81	88
6	WSS DughaShigani	ManjhaDesh	Natharla	27	30	31	35	38	41
			Shakahar	16	18	19	21	23	25
			Saran 1	29	32	33	37	41	44
			Saran-age	11	13	13	14	16	17
			Gugra	31	35	36	40	44	47
			Dhobi (Dhar)	148	163	169	187	206	224
		Total		6311	6993	7236	8020	8812	9600

Source: Detailed Project Report, 2020-2021.

Grid MK - 12

C No	Name Of Scheme	Village	Name Of Habitation			Population	n Forecast		
S. No.		Village Name Of Habita		2011	2019	2022	2032	2042	2052
	WssNirmand		Shagoli	643	708	732	812	893	973
			Bus Adda	984	1083	1120	1243	1366	1489
			Kuru (T)	24	27	28	31	34	37
			Shishvi	390	429	444	493	542	590
			New Nagri(T)	100	110	114	127	139	152
			Takoli (T)	633	697	721	800	879	958
1		Nirmand	Snarla Muhala (T)	369	406	420	466	512	559
1		INITHANG	Luharla (T)	30	33	35	38	42	46
			Bhiunta (T)	141	156	161	179	196	214
			Deem Muhala (T)		335	346	384	422	460
			BishnuMuhala (T)	329	362	375	416	457	498
			Mindki	105	116	120	133	146	159
			Pokdhar	194	214	221	245	270	294
			Piptu	123	136	140	156	171	187
	WssRemuKedas		Pujarilang	94	104	107	119	131	143
			Jhayara	240	264	273	303	333	363
			Olinalh	120	132	137	152	167	182
0		Dames	Johar	76	84	87	96	106	115
2		Remu	Kandu	76	84	87	96	106	115
			Kedas	154	170	176	195	214	233
			Dhankapad	75	83	86	95	105	114
			Marehri	616	678	701	778	855	932

S. No.	Name Of Scheme	Villago	Name Of Habitation	Population Forecast						
5. NO.		Village	Name Of Habitation	2011	2019	2022	2032	2042	2052	
			Remu	194	214	221	245	270	294	
	Wss Bail Dharopa		Bagajaan	6	7	7	8	9	10	
3		Baial	Bail	540	594	615	682	750	817	
3		Dalai	Dropa (T)	62	69	71	79	87	94	
			Kandli	16	18	19	21	23	25	
4	WssShanuJaterh	Arsu	Jaterh	57	63	65	72	80	87	
4		Alsu	Shanu	87	96	99	110	121	132	
	WssChatti		Siswaser	268	295	305	339	372	406	
5		Chhati	Lower Chhati	140	154	160	177	195	212	
			Upper Chhati	173	191	197	219	241	262	
	WssKoil		Achwa	18	20	21	23	25	28	
			Dhamota	88	97	101	112	123	134	
			Dogri	65	72	74	83	91	99	
			Khatal	78	86	89	99	109	118	
6		Gadej	Koil	323	356	368	408	449	489	
			Kuku	48	53	55	61	67	73	
			Pokhani	72	80	82	91	100	109	
			Sarlie	40	44	46	51	56	61	
			Satvan	27	30	31	35	38	41	
			Total	8122	8950	9257	10272	11292	12304	

Source: Detailed Project Report, 2020-21.

Appendix 2: Survey Safety Protocol on COVID-19

Himachal Pradesh Rural Drinking Water Improvement and Livelihood Project (HPRDWILP)

A. Introductions

1. The Government of Himachal Pradesh has requested support from Asian Development Bank for the Himachal Pradesh Rural Drinking Water Improvement and Livelihood Project (HPRDWILP)to improve universal and equitable access to safe and affordable drinking water. The outcome of the project is reliability and efficiency of water supply in targeted districts enhanced. As a part of the social safeguard documents (Resettlement Plans, Due Diligence Reports), and Detail Measurement Surveys, socio-economic survey will require to be conducted for the project locations. As the COVID-19 situation is prevailing, safety protocol for survey work has been developed addressing COVID-19.

B. About the Corona Virus Disease

2. Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. At this time, there are no specific vaccines or treatments for COVID-19.⁷ However, precautions can be implemented to prevent and slow down the transmission of the virus.

C. Common Symptoms of Corona Virus Disease⁸

3. COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

Most common symptoms:

- fever;
- dry cough;
- tiredness.

Less common symptoms:

- aches and pains;
- sore throat;
- diarrhea
- conjunctivitis;
- headache;
- loss of taste or smell;
- a rash on the skin, or fingers or toes become pale.

Serious symptoms:

difficulty breathing or shortness of breath;

⁷World Health Organization. https://www.who.int/health-topics/coronavirus#tab=tab_1

⁸World Health Organization. <u>HTTPS://www.who.int/HEALTH-TOPICS/CORONAVIRUS#TAB=TAB_1</u>

- chest pain or pressure;
- loss of speech or movement.

D. Personal Protective Equipment that should be worn by survey team of HPRDWILP

- 4. While in the field, all the members of the survey team shall use or wear proper personal protective equipment (PPE) at all times. These PPEs may be removed on certain circumstances only, such as, but not limited to, eating, drinking, and any other task or activity that the PPE may inhibit the action. However, during these times, strict observance of social distancing is required.
- 5. The most common type of PPEs that should be worn by the field surveyors and enumerators are the following:
 - Reusable mask or surgical mask. Reusable masks should be maintained clean per the manufacturer's instruction. Surgical masks should not be reused.
 - **Face shield**. This PPE is especially useful for the field workers especially when talking to various people in a relatively confined space or indoors.
 - **Gloves**. This is especially useful in situations in the field where items are being passed around from one hand to another, and no available hand sanitizers, or water and soap for handwashing after the activity.

E. Safety Protocol for Survey Work

1. The survey team of HPRDWILP should ensure the following:

- Before undertaking the survey, ensure that the respective Gram Panchayats and other local administrative bodies has been informed by HPRDWILP about the survey.
- Never carry out survey activities in containment zone, if any, and undertake surveys in such areas after restrictions are lifted and necessary approvals are obtained for survey work.
- Maintain adequate stock of masks and sanitiser for survey team; and single-use surgical mask for respondents.
- The team should have handheld contactless temperature scanner and pulse oximeter (minimum 3-sets).
 - a) To test all members of the survey team every morning before starting of survey to ensure no persons are having a fever (above 100 F or 38 C) and oxygen saturation level (should be above 95).
 - b) Once in the field, the head of the team should test the temperature of every respondent before assigning a team member to a particular respondent.
 - The temperature of the respondent should be below above 100 F or 38 C.
 - ii. If the temperature is high, then advise such respondents to take a rest and consult a doctor.
 - c) FGDs should be held only if allowed by District administration and situation permits. Otherwise, avoid FGDs.

- d) If FGDs are conducted, ensure it is held in the open, ensuring that participants are seated at least 1-meter apart.
- e) Ensure there is no handshaking or any physical contact between participants and provide surgical mask to all participants.
- f) Participants with fever, if any, should be asked to stay at home and not join the FGD.
- 6. Check daily the latest information on areas where COVID-19 is spreading and ensure no survey work is undertaken in any area declared as a containment zone.
- 7. Ensure no member of the survey team is in the high-risk category, those with medical conditions such as diabetes, heart, lung disease, etc. If any, counsel them and exclude them from the survey activity.
- 8. Ensure that no respondent with fever, cough, and cold is included in the enumeration, and collect information from some other member of the family who is in good health. If all members of the family are unwell, skip enumerating such families.
- 9. Mobile phones of the survey team, laptop, etc. need to be wiped with disinfectant daily on return from the field.
- 10. The general safety protocol and COVID-19⁹ will be implied for the entire survey team of HPRDWILP.

2. Every enumerator/Interviewer of the survey team should strictly adhere to the following safety measures

- 11. HPRDWILP will provide an adequate number of branded N95 masks (single use only). At the end of each day, upon reaching home/place of stay, cut the mask into 2-pieces (to prevent recycling) and safely dispose of it in a separate wrapper as per State guidelines.
- 12. The enumerator/ interviewer should have a shoulder bag for carrying the hand sanitiser, single-use surgical masks, hand towel, survey tablet, identity card, water bottle, etc.
- 13. He should use N95 mask before setting out of his place to survey location and should use it throughout the day, till he completes the day's survey work and returns to his place.
 - a) Before putting on the mask, clean hands with alcohol-based hand sanitise or soap and water.
 - b) Cover mouth and nose with mask and make sure there are no gaps between the face and the mask.
 - c) Avoid touching the mask while using it; if it is touched, clean hands with alcohol-based hand sanitise immediately after touching the mask.
 - d) To remove the mask: remove it from behind (do not touch the front of the mask); clean hands with alcohol-based hand rub or soap and water; and wash the mask with washing soap and dry it in sunlight.
- 14. Before and after every household survey, clean hands thoroughly with an alcohol-based hand sanitiser, which will be provided by HPRDWILP.

⁹HTTPS://WWW.ADB.ORG/DOCUMENTS/SERIES/COVID-19-ASIA-PACIFIC-GUIDANCE-NOTES

- a) Avoid touching eyes, mouth, and nose immediately after using the hand sanitiser, as it can cause irritation.
- b) Under no circumstance, drink or let children at home or survey-place, swallow the hand sanitizer. It can be poisonous.
- c) Hand sanitizers recommended to protect against COVID-19 are alcohol-based and therefore can be flammable, be careful.
- 15. Wash hands with soap and water or using alcohol-based hand sanitiser before having tea and lunch.
- 16. Carry a freshly washed hand towel every day to dry your hands after washing.
- 17. Maintain at least 2 metre (6 feet) distance between yourself and the respondent and others during the enumeration.
 - a) Since the place of the respondent to be surveyed, may be congested and it may be difficult to maintain the minimum 6-feet distance, ensure that the respondent wears a mask throughout the enumeration.
 - b) Collect and keep some single-use surgical masks from your supervisor for giving to respondents.
 - c) Request respondents to avoid crowding of other family members when the enumeration is in progress.
- 18. After collecting and handing over the identity cards for taking photographs, ensure that hands are cleaned using alcohol-based hand sanitiser.
- 19. Avoid going to crowded places during and after enumeration.
- 20. Avoid touching eyes, nose, and mouth until reaching home and have taken a bath.
 - a) Use shampoo and wash hair thoroughly.
 - b) Wash clothes and dry them in sunlight.
 - c) All gadgets and materials used during survey should be disinfected, put in one bag and keep away from any family member, to ensure no virus is brought into the households of enumerators/surveyors.
 - d) Dispose off used face masks properly as described above. Face shields should be properly washed or disinfected as well.
- 21. Consume only cooked hot food and avoid consuming any packaged food.
 - a) Carry drinking water and keep the body hydrated.
 - b) Drink hot water, wherever possible
- 22. Avoid public transport for local travel and use vehicle/motorcycle of HPRDWILP (if possible) to reach survey places (settlements).
 - a) If auto-rickshaw is used ensure only 2-persons travel and in taxi, 3-persons. As much as possible, avoid auto and taxi, and use motorcycle or cycle instead.

- b) If someone has any minor symptoms such as cough, headache, mild fever, inform HPRDWILP, and stay at home. Do not come for the survey work.
- c) At home, be isolated from others.
- d) call the nearest government COVID-19 health care contact person and give details of your symptoms and places that is visited for survey work.

F. Important

23. HPRDWILP will facilitate testing of the members for COVID-19, once they reach the destination town and the supervisors should be in self-quarantine till results come. Only after the result is known and is Negative, the survey activities should commence. If anyone tests Positive, then such a person should immediately contact the hospital and take treatment as recommended.

Appendix 3: Summary of Public Consultations

Consolidated Summary of Consultations

S. No	Number of Person consulted	Male	Female	Key topics and issues discussed	Outcome
1	64	51	13	 Present Water supply scenario of the area Subproject components and water supply system Household connections Willingness to pay 	The community in general wassatisfied with the components identified and assured required support. The people shared that they are willing to pay for the improved water supply services.

Details of Consultations

S.No. Da		Name of articipants	Location/Gra m Panchayat	Topics Discussed	Photographs
1 9.11.	Ms Ms Ms Ms Ms Ms Mr Mr Mr Mr Mr Mr Mr	s.Gora Thakur s.Gudi Thakur s. Yuma Negi s. Devki Devi s. Dibh Dashi Ms. Mini Devi . Dharam Dasi s.Choma Devi r, Daleep Negi . ChanderSain Negi r. Neel Chand Negi Thakur Chand Mr. Sarvanbo r. Vimal Negi Mr. Surender Kumar Ir. Lall Chand r. SukhDayal NeranjanDass	Kais village, Kais Panchayat	The community consultation with Indigenous People (STs) Community was held at Kais village belonging to Kais Panchayat. IP community informed that farming, knitting of sweaters, shawls. Also, cultivation and sale of Apples, Plum and Pear are major occupation of the community. Issues raised by public were concerning about irregular supply of water forcing them to purchase personal drums and tanks to store water. The existing source serving them was a local spring source whose discharge is not reliable throughout the year. Hence in peak summers the spring dries up causing delays in water supply. Other problems stated were leakages of pipes, repairs and maintenance issues in pipelines. Therefore, the proposed reliable source of a dedicated bore well to serve the LWSS Seobagh scheme of their village was explained. The IP community members were satiated with project preparedness. The automation concept was explained to the community. The smart water metering was also explained, and community was willing to pay the charges for the frequent and good water supply. Alternative arrangement of water supply during execution phase will be ensured. GRM (Grievance Redressal Mechanism) was explained to Community and was well appreciated. The participants conveyed their support to the project and its benefits. It was informed by the officials that continuous community consultations	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
		Mr. Bhim Sen Mr. Prem Singh Mr. Balbir Singh Mr. Sham Lall Mr. Chunilal Negi Mr. Relu Ram Mr. G.S. Negi Mr. Mohan Lal Mr. Mongal Chand Negi Mr. Kenj Lal Negi Mr. Gyan Chand Ms. Pushpa Devi Ms. Phulmu Devi Mr. Deva Ram Mr. Permanand		will be organized before, during and after execution of the project.	
2	9.11.2020	Ms. Era Mr. Jai Chand Mr. Sabha Ram Mr. PermaNand Mr. ThormalNand	Mashna Village, Mashna Panchayat	The community consultation was held at Mashna village belonging to Mashna Panchayat The community members stated there is more or less adequate supply of water. However, since the existing tanks and pipelines are very old and have past their design service period. There are major leakages in tanks and water supply pipelines.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
		Mr. Manal Singh Mr. Som Dev Ms. Marti Devi Ms. Thakur Devi Ms. Neeru		Therefore, the replacement of the existing water supply components where proposed was explained to the community members. The proposed source and the automation concept were explained to the community. The smart water metering was explained, and community was willing to pay the water charges for the frequent and good quality of water supply. Alternative arrangement of water supply during execution phase will be ensured. GRM (Grievance Redressal Mechanism) was explained to public and was well appreciated. The participants conveyed their support to the project and its benefits. It was informed by the officials that continuous community consultations before, during and after execution of the project will be organized.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
3 9.1	1.2020	Ms. Gora Thakur Ms. Gudi Thakur Ms. Yuma Negi Ms. Devki Devi Ms. Sibh Dashi Ms. Mini Devi Ms. Dharam Dasi Ms. Choma Devi Ms. Pushpa Devi Ms. Phulmu Devi	m Panchayat Kais village, Kais Panchayat	There is an urgent need of water in the village. Majority of the community members store water in their personal tanks and drums since the supply is not regular. The existing pipelines are frequently being broken by the running vehicles. The proposed source and the automation concept were explained to the community. The smart water metering was explained, and community was willing to pay the charges for the frequent and good quality of water supply. Alternative arrangement of water supply during execution phase would be ensured. GRM (Grievance Redressal Mechanism) was explained to community and was well appreciated. The participants conveyed their support to the project and its benefits. It was informed by the officials that continuous community consultations will be organized before, during and after execution of the project.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
4	17.09.202	Mr. Gian Chand (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Chakurtha and is to be used for construction of SR Chakurtha. Mr. Gian Chand is a full-time farmer, owning approximately 23,400 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that there is no proper piped water connection in his village, and he has put his own personal pipe for water supply. Hence, he is donating the land for the frequent and clear water supply in the village.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
5	17.09.202	Mr. Mayadhar Sharma (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Chakurtha and is to be used for construction of SR Bagadhar. Mr. Mayadhar Sharma is a full-time farmer, owning approximately 9,700 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that there is insufficient intermittent water supply in every alternate day.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
6	17.09.202	Mr. Khem Singh (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Ratwah and is to be used for construction of SR Manglore. Mr. Khem Singh is a full-time farmer, owning approximately 1200 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that during rainy season water gets contaminated and muddy. Hence, he is donating the land for the frequent and clear water supply in the village.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
7	17.09.202 1	Mr. Jeet Ram (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Thati Bir and is to be used for construction of SR Sukaribir Mr. Jeet Ram is a full-time farmer, owning approximately 4000 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that there is insufficient water supply and water is supplied every alternate day.	
8	18.09.202	Mr. Meher Chand (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Chakurtha and is to be used for construction of SR Ruhan Mr. Meher Chand is a full-time farmer, owning approximately 6400 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that the existing scheme is really old with damaged and failing infrastructure and hence, water supply is inadequate in his village	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
9	18.09.202	Mr. Yub Raj (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Thati Bir and is to be used for construction of SR Marour. Mr. Yub Raj is a full-time farmer, owning approximately 3200 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that there is insufficient water supply and water is supplied every alternate day.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
10	19.09.202	Mr. Gulab Chand (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Bihali and is to be used for construction of SR Bihali Mr. Gulab Chand is a full-time farmer, owning approximately 5600 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that there is insufficient water supply and water is supplied for 1-2 hours every day.	
11	19.09.202	Mr. Narayan SIngh (Voluntary Land Donor)	Virtual	The consultation was conducted virtually. The proposed land is unused vacant land, located in village Chakurtha and is to be used for construction of SR Jauri. Mr. Narayan Singh is a full-time farmer, owning approximately 9700 sqm of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that the existing scheme is reallyold with damaged and failing infrastructure.	

S.No.	Date	Name of participants	Location/Gra m Panchayat	Topics Discussed	Photographs
12	28.09.202	Mr. Mayadhar Sharma (Voluntary Land Donor) Mr. Kali Ghosh, ADB Social Safeguard Consultant	Virtual	The consultation was conducted virtually with Mr Mayadhar Sharma in the presence of ADB's Social Safeguard Consultant. The proposed land is unused vacant land, located in village Chakurtha and is to be used for construction of SR Bagadhar Mr. MayadharSharma is a full-time farmer owning approximately 12 bigha (9700 sqm) of land. On asking whether his decision to donate the land was coerced or his will, he happily confirmed that he is donating his land to JSV for the benefit of the whole village at his own will, without any coercion. He raised a major concern that water supply is not regular, and there is water scarcity in the village.	

Source: Site Visits and Public Consultations 2020-2021

Appendix 3 (A): Attendance Sheets of Public Consultations

Public Consultation at Kais Village, Kais Panchayat

	ckage: MZ-P-3 Zo	ne: Mand		ircle: Kullu	District:		100
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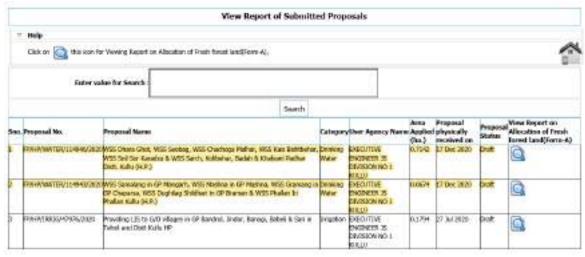
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ıs.	Shiven Sterme	M	Ey	Consiller	941832628	,
16.	Anshul Tyagi	M	EY	Consultant	96542441	5 7

Focus group discussion at Kais village, KaisPanchayat F.G.D. at scalogh (4)11/20) 24 (ST) Site Visit for Environment and Social Safeguard Documents for Renovation and Remodelling of Rural Water supply schemes commissioned prior 01.01.2000 Himachal Pradesh Attendance Sheet District: Circle: Kullu Zone: Mandi Package: MZ-P-3 Village Mobile No. Sign Designation Name Gender Occupation 5.No. 973487821 F.m. Cross Thakers Changin 9517423574 2) 0 Crud Thakers Nais 982140vo7 3) 17 7 H.W. 17 Derki Devi n 5) 17 1/ 10 8988389348 11 4 Muni Devi 17 27 H 11 Phasom Dash Scanogh 840330005 87 11 11 Hois 9459341957 1 9.) 69 15) +7 AŤ. Phulmy Davi Gy Controlle F Carelled SAKIB QADRI 7 12 Consollant U. Naveen Sai M 4 10 10 Show Showns 01 AnhulTyag

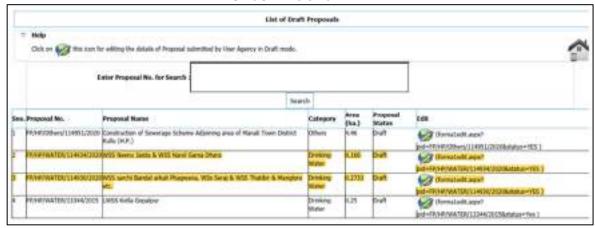
Appendix 4: Land Records from Forest Department and NOCs from Gram Panchayats

(A) Land from Forest Department

Grids MK1 and MK2



Grids MK6 and MK7



Grids MK9 and MK12



(B) Consents for Panchayats for Implementation Works

(D) 001	isents it	or Panchayats for implementation wo	JINO				
S. No.	Grid	Name of Scheme	Name of Gram Panchaya t	Availability of Land Records/N o Objection Certificate	Involuntary Resettlemen t Impact		
1		WSS Samalang	Mangarh	Yes	Nil		
2		WSS Phallan	Phallan	Yes	Nil		
3	MK-1	WSS Dughlag	Dughlag	Yes	Nil		
4		WSS Gramang	Choparsa	Yes	Nil		
5	WSS Mashna		Mashna	Yes	Nil		
6		WSS	Balah	Yes	Nil		
7		Sarach,Kolibehar,Badah&KhalyaniPadh ar	Barahar	Yes	Nil		
8			Kais	Yes	Nil		
9	MK-2	WSS Seobag	Gahar	Yes	Nil		
	WSS Dharaghot			Yes	Nil		
10				WSS Chachogamalhar	Kais	Yes	Nil
		WSS Soul Sor Kararsu		Yes	Nil		
11		WSS NeenuJaishtha	Jeshta	Yes	Nil		
12	MK-6	WSS NarolgarsaDhara	Garsa	Yes	Nil		
13			Sarachi	Yes	Nil		
14		WSS SarchiBandalArkhaliPhagwana	Chakurtha	Yes	Nil		
15	MK-7	WSS Thatibir, Targali&Manglore etc	Manglore	Yes	Nil		
16		WSS Seraj	Seraj	Yes	Nil		
17			Khanni	Yes	Nil		
18	MK-9	WSS Khanag, WSS NagotPalli, Parkot&KhadviKafti in Tehsil Anni Distt.	Kohila	Yes	Nil		
19		Kullu	Kamand	Yes	Nil		

S. No.	Grid	Name of Scheme	Name of Gram Panchaya t	Availability of Land Records/N o Objection Certificate	Involuntary Resettlemen t Impact
20			Buchhar	Yes	Nil
21			Khanag	Yes	Nil
22			Deothi	Yes	Nil
23			Lajheri	Yes	Nil
24			Nirmand	Yes	Nil
25			Tawar	Yes	Nil
26	MK- 12	WSS Koli, WSS ShanuJaterh,WSS Bail Dharopa,WSSRemuKedas,WSSChatti	Arsu	Yes	Nil
27	_		Tunan	Yes	Nil
28			Gadejh	Yes	Nil

GRID- MK-1, WSS Samalang

Gram Panchayat: Mangarh

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GRID- MK-1, WSS Phallan

Gram Panchayat: Phallan

We the residents	of FALLAN	Gram Panchayat, District
KULLU	Himachal Pradesh, have	e no objection for laying of water supply
pipelines through our la	and and we hereby undertake to	cooperate during execution of the laying of
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		Jal Shakti Vichag (Sign and Stamp)

GRID- MK-1, WSS Dughlag

Gram Panchayat: Dughlag

We the residents of	DUGHI LUG Gram Panchayat, District
kuan	, Himachal Pradesh, have no objection for laying of water supply
pipelines through our land	and we hereby undertake to cooperate during execution of the laying of
water supply pipelines un	nder Renovation and Remodelling of Rural Water supply schemes
commissioned prior 01.01.2	000.
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GRID- MK-1, WSS Gramang

Gram Panchayat: Choparsa

	Consent from Gram	Panchayat		
We the residents	ofCHOTARSA	Gram	Panchayat, District	
KULLD.	Himachal Pradesh, ha	we no objection for la	lying of water supply	
pipelines through our l	and and we hereby undertake to	o cooperate during exe	oution of the laying of	
	es under Renovation and Ren			
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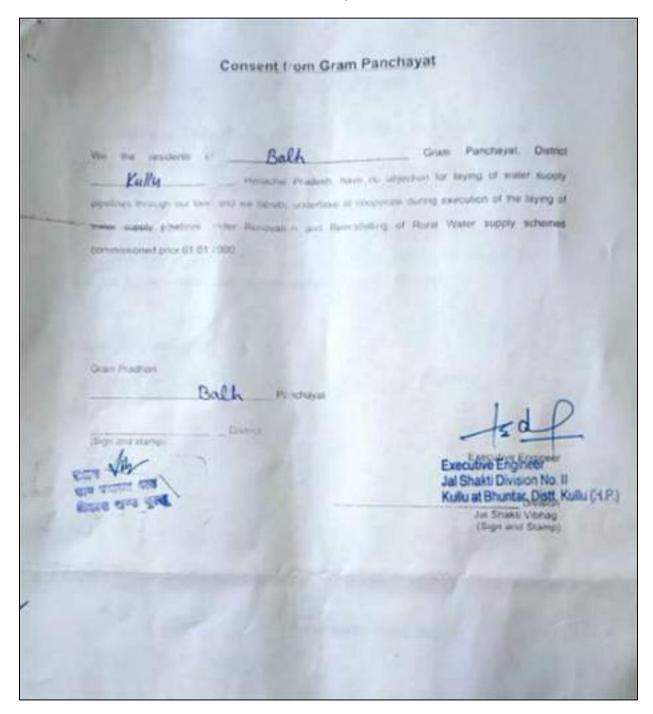
Gram Panchayat: Masna

	and we hereby undertake to inder Renovation and Ren	ave no objection for lay	tion of the laying of
Gram Pradhan	PanchayatDistrict		Alaw
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GRID- MK-2, WSS Sarach, Kolibehar, Badah & Khalyani Padhar Gram Panchayat: Kais

We the residents	of Kais	Gram Panchayat, Distri
Kally		o objection for laying of water supp
pipelines through our la	and and we hereby undertake to coop	perate during execution of the laying
water supply pipeliner	under Renovation and Remodelli	ing of Rural Water supply scheme
commissioned prior 01.0		
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Pratinan	Panchayat	197
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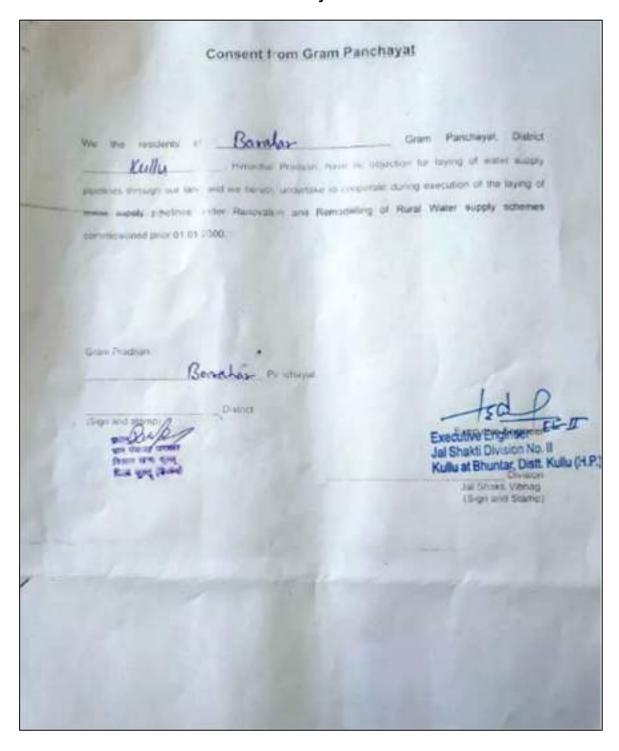
GRID- MK-2, WSS Sarach, Kolibehar, Badah & Khalyani Padhar Gram Panchayat: Balh



GRID- MK-2, WSS Sarach, Kolibehar, Badah & KhalyaniPadhar Gram Panchayat: Gahar

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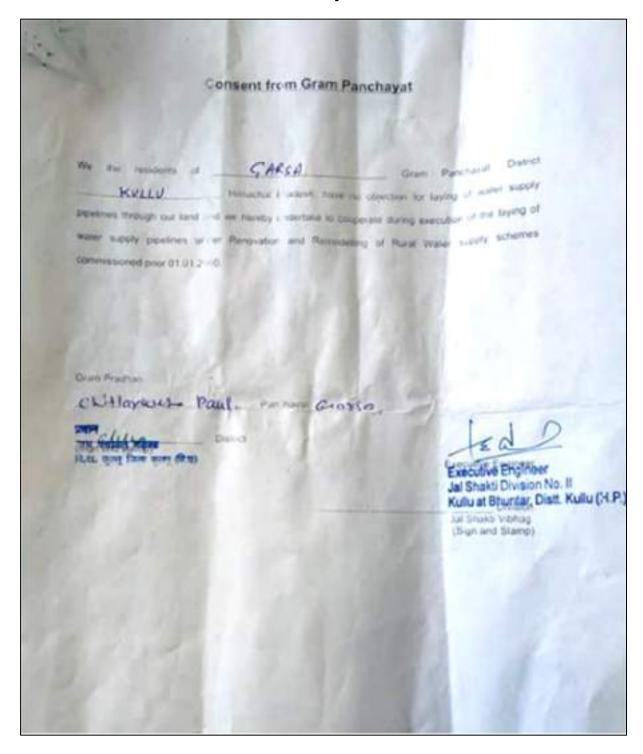


GRID- MK-2, WSS Sarach, Kolibehar, Badah & Khalyani Padhar Gram Panchayat: Karadsu

We the residents of		
Kunu	Himachal Pradesh, have no objection for laying of water supp	
	and we hereby undertake to cooperate during execution of the laying inder Renovation and Remodelling of Rural Walter supply schema	
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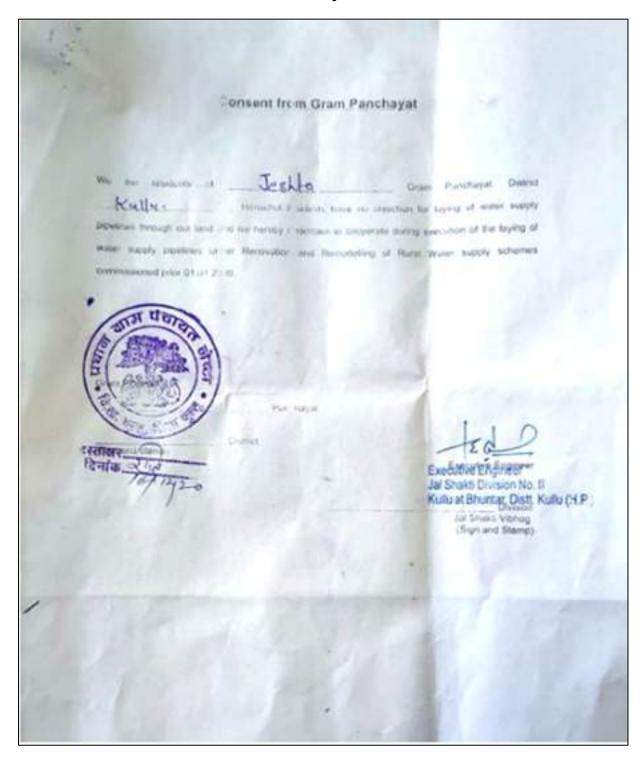
GRID- MK-6, WSS NarolgarsaDhara

Gram Panchayat: Garsa



GRID- MK-6, WSS NeenuJaishtha

Gram Panchayat: Jeshta



GRID- MK-7, WSS SarchiBandalArkhaliPhagwana

Gram Panchayat: Sarachi

Consent from Gram Panchayat Sarchi residents of Gram Panchayat, District Kullu, Himachal Pradesh, have no objection for laying of water supply pipelines through our land and we hereby undertake to cooperate during execution of the laying of water supply pipelines under Renovation and Remodelling of Rural Water supply schemes commissioned prior 01.01.2000. Pradhan Gram Panchayat District Kullu (Sign and stamp) Executive Engineer Jal Shakti Division Kullu-II. lei Shahti Sub Division Jal Shakti Vibhag (Sign and Stamp)

GRID- MK-7, WSS SarchiBandalArkhaliPhagwana

Gram Panchayat: Chakurtha

Consent from Gram Panchayat

We the residents of CHARURTHA Gram Panchayat, District Kullu, Himachal Pradesh, have no objection for laying of water supply pipelines through our land and we hereby undertake to cooperate during execution of the laying of water supply pipelines under Renovation and Remodelling of Rural Water supply schemes commissioned prior 01.01.2000.

Pradhan Gram Panchayat

District Kullu

(Sign and stamp)

haun. Assisiant Eng Executive Engineer Jal Shakti Division

Kullu-II.

Jal Shakti Vibhag (Sign and Stamp)

GRID- MK-7, WSS Thatibir, Targali&Manglore etc

Gram Panchayat: Manglore

Consent from Gram Panchayat

Gram the Margeore residents Panchayat, District Kullu, Himachal Pradesh, have no objection for laying of water supply pipelines through our land and we hereby undertake to cooperate during execution of the laying of water supply pipelines under Renovation and Remodelling of Rural Water supply schemes commissioned prior 01.01.2000.

Pradhan Gram Panchayat

District Kullu

(Sign and stamp) जेला कुरुट्स गर्छन्छ

> Engineer oi Shakti Sub Division Jal Shakti Vibhag Sanjar

Executive-Engineer Jal Shakti Division

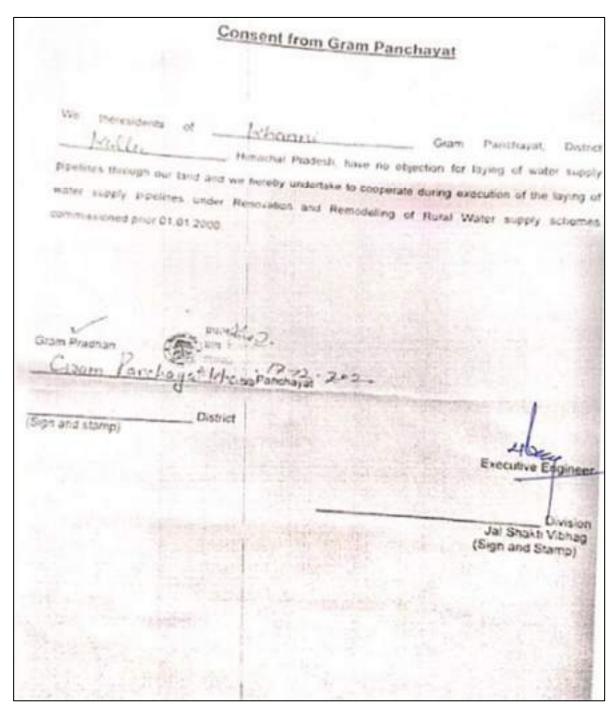
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GRID- MK-7, WSS Seraj

Gram Panchayat: Seraj

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	ly pipelines th					
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		Jal Sh	okti Sub	Division	Kullu-II.	di Vibhag
		Banjar			(Sign ar	id Stamp)

Gram Panchayat: Khanni



Gram Panchayat: Kohila

	Consent from Gra	im Panchayat	
We theresidents of		Gram in the Gram in the formal in the Gram	Panchayat, District
pipelines through our land	and we hereby undertake	to cooperate during exec	ution of the laying of
water supply pipelines of	under Renovation and Re	emodelling of Rural Wa	ter supply schemes
commissioned prior 01.01.	2000.		
Gram Pradhan Gram Pathan Gram Pathan (Sign and stamp)	16/12/2020 Parichaiyat District		Executive Engineer
	-		Division Jal Shakti Vibhag (Sign and Stamp)

Gram Panchayat: Kamand

<u>c</u>	onsent from Gram Panci	hayat
we therewdents of	of Renovation and Remodelling of	Gram Ponchayat District spection for laying of water supply e during execution of the laying of of Rural Water supply schemes
Gram Pradhan gair	Concutt Parichayat	
(Sign and stamp)		Executive Engineer Division Jal Shakti Vibhag

Gram Panchayat: Buchhar

		<u>c</u>	Consent from Gran	Panchayat		
We	theresidents	of	Buchher.	Gram	Panchayat,	District
	nes through our supply pipelin	new sample	 Himachal Pradesh, has dive hereby undertake to or Renovation and Remo 	consenses de miner au		
SWITTER	issioned prior ()	1 01 2000				
Gram P	radhun					
Circu	d stamp)	76.	elikeria Panchayat obiot		D	
		7/257 ·			Executive	Engineer
					Jat Shai (Sign and	Division kti Vibhag (Stamp)

Gram Panchayat: Khanag

We theresidents of Khurron Gra Karron Henachal Pradests Provines through our tand and we hereby undertake water supply pipelines under Renovation and Re Commissioned prior 01 01 2000	Gram Panchayat District have no objection for laying of water supply to cooperate during execution of the layers of
Process through our tand and we hereby undertake water supply pipelines under Renovation and Re	have no objection for laying of water supply to cooperate during execution of the layers of
Process through our tand and we hereby undertake water supply pipelines under Renovation and Re	have no objection for laying of water supply to cooperate during execution of the layers of
provines inrough our tand and we hereby undertaker water supply pipelines under Renovation and Re	have no objection for laying of water supply to cooperate during execution of the layers of
water supply pipelines under Renovation and Re	to cooperate during execution of the lawner of
supply pipetines under Renovation and Re	modeling of Bural Water supply scheme:
Gram Pradhan	
In cities for charged themppanchayat	
N. Sp. Dodged	1
(Sign and stans)	Executive Physical
	-
(Aug	Dyso
	Jal Shakh Vibrus (Sign and Stamp)

Gram Panchayat: Deothi

We theresidents of .	Deothi:	Gram Panchayat, District no objection for laying of water supply
	nd we hereby undertake to co der Renovation and Remod	coperate during execution of the taying of relling of Rural Water supply schemes
Gram Pradmany	f Deelis' Panchayat	
(Sign and stamp)	District	Executive Engineer
		Jal Shakti Vibhag (Sign and Stamp)

Gram Panchayat: Lajheri

C	onsent from Gran	n Panchayat	
We theresidents of _	Lojheni _, Himachal Pradesh, ha	Gram Pa	nchayat, District g of water supply
pipelines through our land an water supply pipelines und commissioned prior 01.01.200	er Renovation and Rem	codelling of Rural Water	
(Sign and stamp)	Lojheri Panchayat District		464
	_		Division Jal Shakti Vibhag

Gram Panchayat: Nirmand

	Consent from Gram Panchayat
The same state of the same sta	Himachal Pradesh, have no objection for laying or water supply a and we hereby undertake to cooperate during execution of the laying of under Renovation and Remodelling of Rural Water supply schemos
Gram Prodhen (Sign and scamp)	Panchayat District Executive Express Division
John II	Jai Shako Wohag (Sign and Stamp)
	A STATE OF THE PARTY OF THE PAR

Gram Panchayat: Tawar

	Consent from Gram Panchayat
	We theresidents of TWAR Gram Panchayat District KULLU Himachal Pradesh, have no objection for laying of water supply pipelines through our land and we hereby undertake to cooperate during execution of the laying of water supply pipelines under Renovation and Remodeling of Rural Water supply schemes commissioned prior 01 01 2000.
	Gram Prachan Panchayat Executives Executives Executives
Ty.	Jai Shari Venag (Sign and Stamp) Asserting Sections For Section Conseque Stamport

Gram Panchayat: Arsu

	Consent from Gram Panchayat
We thro	the residents of ARSC Gram Panchayat, District Himachal Pradesh, have no objection for laying of water supply pipelines sugh our land and we hereby undertake to cooperate during execution of the laying of water supply elines under Renovation and Remodelling of Rural Water supply schemes commissioned prior
	01.2000
The day	Panchayat Sign and stamp) Executive Engineer Division Jal Shakti Vibring (Sign and Stamp)
	and a

Gram Panchayat: Tunan

Consent from Gram Panchayat

We the residents of Tunnan Gram Panchayat, District Kullu, Himachal Pradesh, have no objection for laying of water supply pipelines through our land and we hereby undertake to cooperate during execution of the laying of water supply pipelines under Renovation and Remodelling of Rural Water supply schemes commissioned prior 01.01.2000.

Gram Pradhan Tunnan Panchayat Kullu District

(Sign and stamp)

जिला युल्लू तीवन

Executive Engineer

(Sign and Stamp)

IPH Sub Division Nirmand

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Gram Panchayat: Gadejh

	Consent from Gram Panchayat	*
	We the residents of STADEGI Gram Panchayat Distribution for laying of voter such RUILU Hamachal Pradicin, have no objection for laying of voter such pipelines through our land and we hereby undertake to obsperate during execution of the laying water supply pipelines under Renovation and Remodelling of Rural Water supply some commissioned prior 01.01.2000.	o's i of
	Gade) Serger Panchayer (Sign and stamp)	
dot	Asympton December 1990 Decembe	ihag ampi

Appendix 5: Land Records, Consents and Socio-Economic Profile of Voluntarily Private Land Donors

Table 5-1: Summary of Land Donors

S.No	Gri d	Scheme Name	Proposed component	Name of Village/ Tehsil	Require d area (sqm)	Name of the Landowner/ Donor	Khasr a No.	Availability of Land Records/N o Objection Certificate	Presen t Land Use of the plot	Involuntary Resettleme nt Impact
1	MK 6	WSS NarolGarsaDhara	Proposed SR Nalashri	Bhallan	64	Mr. Khem Chand	1303	Yes	Unused Vacant Land	Nil
2	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed MBR Jauri	Chakurth a	64	Sh Narayan Singh	411	Yes	Unused Vacant Land	Nil
3	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Bihali	Bihali	64	Sh Gulab Chand	886	Yes	Unused Vacant Land	Nil
4	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Pataula	Thati Bir	64	Sh Hira Lal	131	Yes	Unused Vacant Land	Nil
5	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Marour	Thati Bir	64	ShYub Raj	768	Yes	Unused Vacant Land	Nil
6	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Sukaribir	Thati Bir	81	Sh Jeet Ram	830	Yes	Unused Vacant Land	Nil
7	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Chakurtha	Chakurtha	64	Sh Gian Chand	1425	Yes	Unused Vacant Land	Nil
8	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Bagadhar	Chakurtha	81	ShMaydhar Sharma	772	Yes	Unused Vacant Land	Nil
9	MK 7	WSS SarchiBandalArkhaliPhagwa na	Proposed SR Ruhan	Chakurtha	64	Sh Mehar Chand	152/1	Yes	Unused Vacant Land	Nil

S.No	Gri d	Scheme Name	Proposed component	Name of Village/ Tehsil	Require d area (sqm)	Name of the Landowner/ Donor	Khasr a No.	Availability of Land Records/N o Objection Certificate	Presen t Land Use of the plot	Involuntary Resettleme nt Impact
10	MK 7	WSS Thatibir, Targali&Manglore	Proposed SR Manglore	Ratwah	64	Sh Khem Singh	805	Yes	Unused Vacant Land	Nil

Source: Site Visits and Consultations

Table 5-2: Socio-Economic Profile of Voluntary Land Donors

								70010		mic Pro	71110 01	Ciaii	u, y =	una b	011010					
S. No	Name of Landown er	No. of Family Memb er (s)	Khas ra No.	Total Land Holdin g (includ e-ing the land for sell) (sqm)	Total Land Area Require d for compon e-nt (sqm)	Total Land Shar e of the own er (sqm	% of Land to be Used for propose d Constru ct-ion Against Total Land Holding	Prese nt Land Use of the Plot	Any other Structu re / Trees/ Crops on the plot	Primary Occupati on of HH	Alternate means of Livelihoo d/ Income Available	Total Month ly Family Incom e of HH	Per head per mont h inco me	Total annual Incom e from the Affect ed Plot	Type of House	Catego ry	AP L/ BP L	Asset s	Whether any vulnerabil ity	Photograph
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Sh. Khem Chand	5	1303	20100	64	1112 9	0.58	Unuse d vacant Land	NIL	Agricultur e	NIL	12000	2400	NIL	Pucca House	GEN	APL	Pucca house, 1 smart phone, 1 non- smart phone, 1 two- wheel er, cycle	No	
2	Sh. Narayan Singh	3	411	9700	64	9700	0.66	Unuse d vacant Land	NIL	Agricultur e	NIL	37000	12333	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, 1 non-smart phone, 1 four-wheel er, 1 two-wheel er, couch, dining table	No	
3	Sh. Gulab Chand	6	886	5600	64	5600	1.15	Unuse d vacant Land	NIL	Agricultur e	NIL	18000	3000	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, 1 non-smart phone, 1 four-wheel er, 1 two-wheel er, couch, dining table	No	

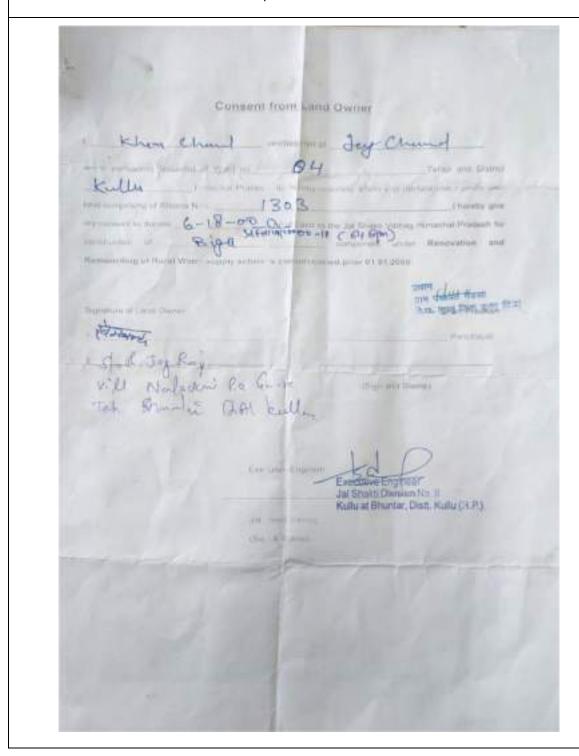
S. No	Name of Landown er	No. of Family Memb er (s)	Khas ra No.	Total Land Holdin g (includ e-ing the land for sell) (sqm)	Total Land Area Require d for compon e-nt (sqm)	Total Land Shar e of the own er (sqm	% of Land to be Used for propose d Constru ct-ion Against Total Land Holding	Prese nt Land Use of the Plot	Any other Structu re / Trees/ Crops on the plot	Primary Occupati on of HH	Alternate means of Livelihoo d/ Income Available	Total Month ly Family Incom e of HH	Per head per mont h inco me	Total annual Incom e from the Affect ed Plot	Type of House	Catego ry	AP L/ BP L	Asset s	Whether any vulnerabil ity	Photograph
4	Sh. Hira Lal	4	131	2833	64	2933	2.26	Unuse d vacant Land	NIL	Agricultur e	NIL	8000	2000	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, bicycle	No	
5	Sh. Yub Raj	4	768	3200	64	3200	2	Unuse d vacant Land	NIL	Agricultur e	NIL	8000	2000	NIL	Pucca House	GEN	APL	Pucca House , 1 smart phone, 1 two- wheel er, cycle	No	3
6	Sh. Jeet Ram	11	830	4045	81	4045	2	Unuse d vacant Land	NIL	Agricultur e	NIL	20000	1818	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, 1 two- wheel er, couch, dining table	No	CO.
7	Sh. Gian Chand	4	1425	23470	64	2347	0.3	Unuse d vacant Land	NIL	Agricultur e	NIL	60000	15000	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, 1 four- wheel er, 1 two- wheel er, dining table, couch	No	
8	Sh. Mayadhar Sharma	6	772	9700	81	9700	0.8	Unuse d vacant Land	NIL	Agricultur e	NIL	12000	2000	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, one two- wheel	No	

S. No	Name of Landown er	No. of Family Memb er (s)	Khas ra No.	Total Land Holdin g (includ e-ing the land for sell) (sqm)	Total Land Area Require d for compon e-nt (sqm)	Total Land Shar e of the own er (sqm	% of Land to be Used for propose d Constru ct-ion Against Total Land Holding	Prese nt Land Use of the Plot	Any other Structu re / Trees/ Crops on the plot	Primary Occupati on of HH	Alternate means of Livelihoo d/ Income Available	Total Month ly Family Incom e of HH	Per head per mont h inco me	Total annual Incom e from the Affect ed Plot	Type of House	Catego ry	AP L/ BP L	Asset s	Whether any vulnerabil ity	Photograph
																		er, cycle		
9	Sh. Meher Chand	5	152/1	6400	64	6400	1	Unuse d vacant Land	NIL	Agricultur e	NIL	12000	2400	NIL	Wood en House	GEN	APL	Wood en house, 1 Smart phone, 1 two wheel er, couch	No	
10	Sh. Khem Singh	3	805	1214	64	1214	5.27	Unuse d vacant Land	NIL	Agricultur e	NIL	6300	2100	NIL	Wood en House	GEN	APL	Wood en house, 1 smart phone, cycle, table	No	

Source: Site Visits and Consultations

GRID MK-6

Proposed SR Nalashri



	Proposed MBR jauri
	1 Toposed Mibry Jauri
Cons	sent from Land Owner
	Deva Pawa
1. Norgan Singh	son/daughter of DCVI PAWA
am a permanent Resident of Ward r	no ? Tehsil and District
Kally Himachal P	Pradesh, do hereby soletility and thereby give
land comprising of Khasra Nos.	m² of Land to the Jal Shakti Vibhag Himachal Pradesh for
my consent to donate 6477	m' of Land to the Jai Strakti Vibragian and component under Renovation and
construction of 11) 15 12 ()	composition of prior 01.01.2000.
Remodelling of Rural Water supply t	schemes commissioned prior 01.01.2000.
Side Price	سعارق
Signature of Land Owner	Gram Pradhan
1	Panchayat
2.	
2	
2	(Sign and Stamp)
2	
2	
1	(Sign and Stamp)
hour	(Sign and Stamp)
Assistant Engineer	Executive Engineer Executive Engineer 1.P.H. Division No-II, Division
hour	Executive Engineer Executive Engineer LP.H. Division No-II, Kullu at Bhumer
Assistant Engineer	Executive Engineer Executive Engineer 1.P.H. Division No-II, Division
Assistant Engineer	Executive Engineer Executive Engineer LP II. Division No-II, Kullu at Bhunter Jal Shakti Vibhag

GRID M	K-7
Proposed SI	R Bihali
Consent from	Land Owner
1. Julib Chand son/daug	hter of Sh. Thabe Ram
am a permanent Resident of Ward no 22	
Himachal Pradesh, do her land comprising of Khasra Nos 8.6	eby solemnly affirm and declare that I jointly own
my consent to donate64 m² of La	and to the Jal Shakti Vibbaa Himashal Bradoch for
Remodelling of Rural Water supply schemes comm	component under Renovation and issioned prior 01.01.2000.
Signature of Land Owner	Gram Pradhan
1. Julabeland	Panchayat
2.	
	(Sign and Stamp)
yours to	
Assistant Engineer Executive Engi	
Banjar I.P.H. Division Kullu at Bhund	
Jal Shakti Vibh	
(Sign & Stamp)	

taula
nd Owner of Sh. Red Singh
Tehsil and Distric
solemnly affirm and declare that I jointly own
I hereby give
to the Jal Shakti Vibhag Himachal Pradesh for component under Renovation and
component under Renovation and ioned prior 01.01.2000.
Gram Pradhan Panchayat
(Sign and Stamp)
Division z.

GRID MK-7
Proposed SR Marour
Consent from Land Owner
am a permanent Resident of Ward no
Assistant Engineer Jal Snadsti Scio Et

	GRID MK-7
	Proposed SR Sukaribir
Co	onsent from Land Owner
1. Jeet Ram	son/daughter of sh. Medi Rom
am a permanent Resident of War	d no 63. Sha Lilla Tehsil and District
land comprising of Khasra Nos &	I fieldby give
my consent to donate81	m² of Land to the Jal Shakti Vibhaq Himachal Pradesh for
construction of SR-SA	component under Renovation and
Signature of Land Owner 1. See Heere 2.	मान प्रभाव Gradi Pradhan शिक्ष्य क्यार कृत्यू (शिक्ष्य) ————————————————————————————————————
	(Sign and Stamp)
Assistant Engineer Jal Shakti Sub Division Banjar	Executive Engineer Executive Engineer I.P.H. Division No-II. Kullu at Bhunter Jal Shakti Vibhag (Sign & Stamp)

GRID MK-7				
Proposed SR Chakurtha				
Consent from Land Owner				
I. Grigh Chand son/daughter of K/MUN Ram				
am a permanent Resident of Ward no 4. Chalcus tha T	ehsil and District			
Bandas, Kullu Himachal Pradesh, do hereby solemnly affirm and declare				
land comprising of Khasra Nos				
my consent to donate 642m m² of Land to the Jal Shakti Vibhag Him.				
construction of SR Challurtha component under R	enovation			
Remodelling of Rural Water supply schemes commissioned prior 01.01.2000.	1 and 6			
Charles	प्रधान ग्राम पंचायत चक्ररव			
Signature of Land Owner	Gram Pradhan			
The state of the s	Panchayat			
1				
2,				
(Sign and Stamp)				
201				
La D				
have Executive Engineer				
Assistant Engineer Executive Engineer				
Carrier Kullu at Blumer				
Jal Shakti Vibhag				
(Sign & Stamp)				

_	D		•	_
_		N/I	ж.	_ /

Proposed SR Bagadhar

Co	nsent from Land Owner
Mayo dhas Illiam	c montaigner of On doll
n a permanent Resident of Ward	The second secon
Banga skully Himachai	Pradesh do hereby sciennily affirm and declare that I jointly own
nd comprising of Khasra Nos.	A CALLES AND
consent to donate 8/2m	m ² of Land to the Jal Shakb Vibhag Himachal Pradesh for
ristruction of SR Basis	component under Renovation and
	schemes commissioned prior 01.01.2000.
Thank	
gnature of Land Owner	Gram Pradhan
	Panchayat
	(Sign and Stamp)
1	to D
naug	Executive Engineer
1 - 156 000	Executive Engineer Division
-	LP.H. Division No-H, Division Kulla at Bhamier
	dal Shakti Vibhag

Proposed SR Ruhan Consent from Land Owner				
			am a permanent Resident of Ward	no 65. VIII GABLE Process That by Tehsil and District Pradesh, do hereby solemnly affirm and declare that I jointly own
			land comprising of Khasra Nos/S	
	m ² of Land to the Jal Shakti Vibhag Himachal Pradesh for			
	component under Renovation and			
Signature of Land Owner	Gram Pradhan			
	(Sign and Stamp)			
Assistant Engineer Ial Shakti Sub Division Deciar	Executive Engineer Executive Engineer I.P.H. Division No-II. Kullu at Bhunter Jal Shakti Vibhag (Sign & Stamp)			

GRID MK-7		
Proposed SR Manglore		
Consent from Land Own	er	
1. Khem Singh son/daughter of Sh	megh Singh	
am a permanent Resident of Ward no 3 manafox	Tehsil and District	
Acure V Kully Himachal Pradesh, do hereby solemnly a	affirm and declare that i joins)	
land comprising of Khasra Nos. 805	I hereby give	
my consent to donate SR manglor 64 m2 of Land to the Jal	Shakti Vibhag Himachai Pradesii ioi	
construction ofSR mangler comp	onent under Renovation and	
Remodelling of Rural Water supply schemes commissioned prior	r 01.01.2000.	
	Gram Pradhan	
Signature of Land Owner	Clamino	
1 (11e)	Panchayat	
	CHITCH!	
2	enst (
	(Sign and Stamp)	
	The same of the sa	
Executive Engineer		
Executive Engineer I.P.H. Division No-II,	Division	
Kullu at Bhunter	DIVISION	
Jal Shakti Vibhag		
(Sign & Stamp)		
ottentas so 6		

Appendix 6: Khasra Map, Revenue Records and Google Earth Imagery of proposed Water Treatment Plants

(A) Grid MK 2- Proposed WTP Jhakru Gharat MohalKhad

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(B) Grid MK 2- Proposed WTP at Badah

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(C) Grid MK 2- Proposed WTP at Seobagh

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(D) Grid MK 2- Proposed WTP at Kot Dhar

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(E) Grid MK 2- Proposed WTP at Ghot

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(F) Grid MK 2- Proposed WTP at Bandrol

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(G) Grid MK 6- Proposed WTP at Jaishtha

- (i) Khasra Map
- (ii) Revenue Records-
- (iii) Google Earth Map



(H) Grid MK 6- Proposed WTP at NautodNiul

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map

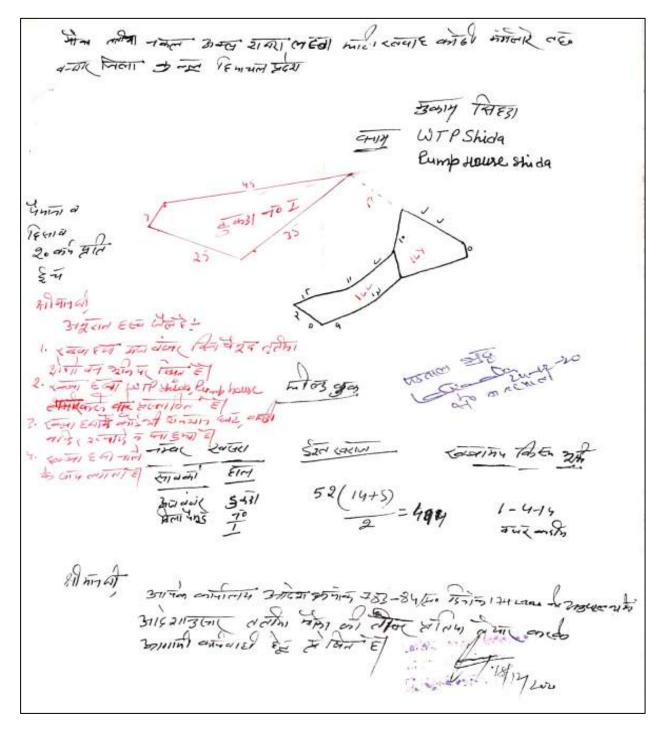


(I) Grid MK 6- Proposed WTP at Naroul

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(J) Grid MK 7- Proposed WTP at Shida





(K) Grid MK 9- Proposed WTP at Joan Khad

- (i) Khasra Map
- (ii) Revenue Records (iii) Google Earth Map



(L) Grid MK 9- Proposed WTP at Bargod

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(M) Grid MK 9- Proposed WTP at LohalRiun

- (i) Khasra Map
- (ii) Revenue Records (iii) Google Earth Map



(N) Grid MK 9- Proposed WTP near SR Khadvi

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(O) Grid MK 12- Proposed WTP at Pujarilanj

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



(P) Grid MK 12- Proposed WTP at Siswaser

- (i) Khasra Map
- (ii) Revenue Records
- (iii) Google Earth Map



Appendix 7: Sample Survey: Google Earth Maps of Indicative proposed pipe alignment in Major Roads- SH/NH

MK2: Proposed alignment of Rising Main along SH 29 (100-200 mm)



MK 9: Proposed alignment of Gravity Main along NH 305 (150-200mm)



MK-9: Proposed Distribution network along NH 305 (80-125mm)



MK 9: Proposed Distribution network along NH 305 (80-125mm)



MK-2: Proposed distribution Network on State Highway 29

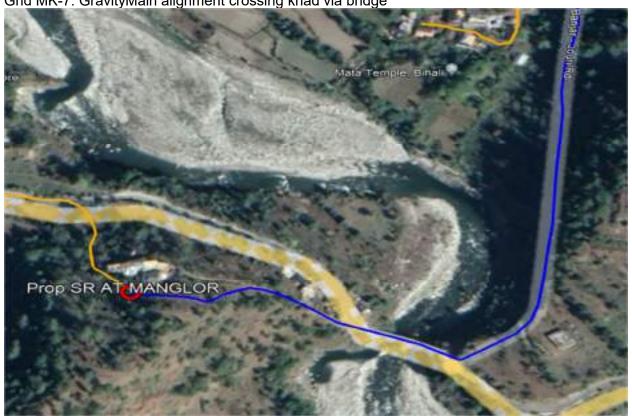


MK-2: Proposed DN on State Highway 29



Appendix 8: Sample Survey: Analysis of Indicative Pipeline Alignments at Various Locations in MZ01

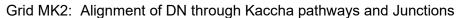
Grid MK-7: GravityMain alignment crossing khad via bridge

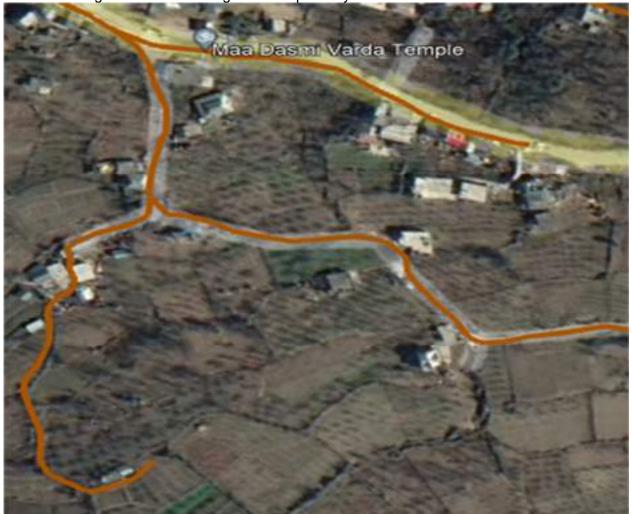


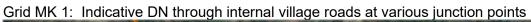




Grid MK 2: Alignment of Gravity Main from proposed SR Tandalaalong forest trails









Grid MK 9: Indicative DN through internal village roads at various junction points





Appendix 9: Sample Survey: Market Place Analysis with Google Earth Images and Site Photographs

1. MK-2: Rising Main and Distribution Network at Market Place on Seobagh Road



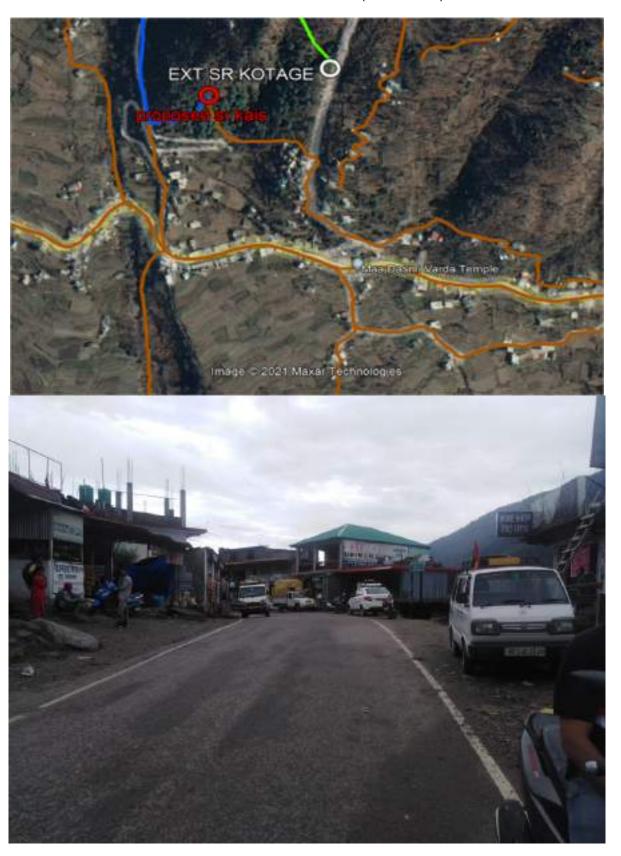


2. MK 2: Gravity Main (80-100 mm) and Distribution Network on SeobaghMarg





3. MK 2: Distribution Network at Market Place on SH 29 (50-100 mm)



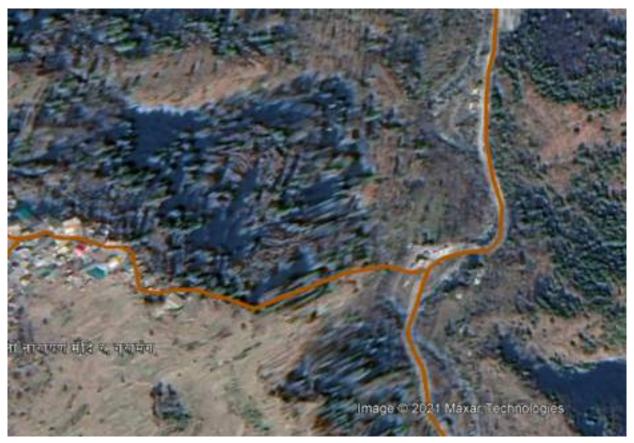


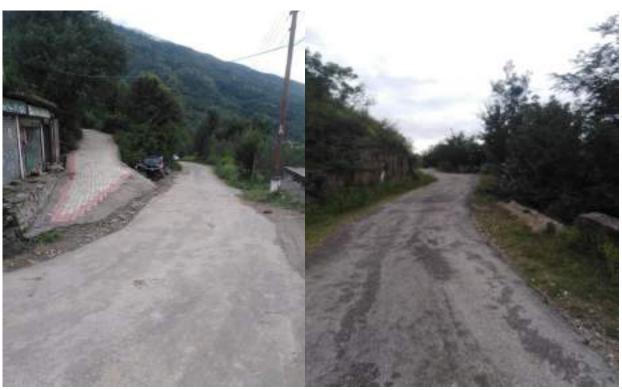
4. MK-2: Distribution Network and Gravity Main at Market Place near kais





5. MS-2: Distribution Network at Market Place on Salangh Project Road







Appendix 10: Additional Information on Water sources, Intake arrangements and WTPs

Grid wise details of sources proposed, water demand and discharge availability is given in table9-1 and discussed below:

GRID MK 1: There are Twelve (12) spring sources proposed:

The lean period discharge observed in different spring sources are 1.20 LPS for WSS Samalang, 1.15 LPS, 1.80 LPS, 1.50 LPS, 1.00 LPS, 1.20 LPS and 1.00 LPS for WSS Mashna, 2.00 LPS for WSS Gramang, 1.50 LPS, 1.10 LPS and 1.50 LPS for WSS DughilagShildhari and 1.50 LPS for WSS Phallan. The lean period discharge of the existing spring sources is enough to cater the future water demand of 0.23 LPS, 0.15 LPS, 0.33 LPS, 0.16 LPS, 0.11 LPS, 0.14 LPS, 0.34 LPS, 0.77 LPS, 0.77 LPS, 0.25 LPS and 0.91 LPS respectively. There is no further downstream abstraction from any of the sources therefore no water conflict will arise.







GRID MK 2: There are a total of 6 sources proposed in Grid MK2.

Source- Borewell Opposite Bandrol: The lean period discharge available at proposed borewell is 17.10 LPS. The source has enough yield to meet the water demand of the ultimate design year i.e., 2042 which is 4.5 LPS. Feasibility report was obtained from senior hydrologist measuring the potential yield of borewell by Electrical resistivity method and the same is attached in the report. As ground water is utilised, no conflict will arise with any community.



Source-Borewell at Seobagh: The lean period discharge available at proposed borewell is 4.56 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 2.55 LPS. Feasibility report was obtained from senior hydrologist measuring the potential yield of borewell by Electrical resistivity method and the same is attached in the report. As ground water is utilised, no conflict will arise with any community.



Source- Borewell at Badah near river Beas: The lean period discharge available at proposed borewell is 5 LPS for 8 hours of pumping. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 4.9 LPS. Feasibility report was obtained from senior hydrologist measuring the potential yield of borewell by Electrical resistivity method and the same is attached in the report. As ground water is utilised, no conflict will arise with any community.



Source- Borewell at Jhakru Gharat near MohalKhad: The lean period discharge available at proposed borewell is 1.20 LPS for 8 hours of pumping. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 0.86 LPS. Feasibility report was obtained from senior hydrologist measuring the potential yield of borewell by Electrical resistivity method and the same is attached in the report. As ground water is utilised, no conflict will arise with any community.



Source- Proposed Intake Chamber at Khuad Nallah: The lean period discharge available at proposed surface water source is 3.5 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 whichis 3.27 LPS. after the abstraction of water at proposed location Khuad nallah merges with another Khad and no further downstream abstraction takes place therefore no further conflict will arise.



Source- Proposed Intake Chamber at Kais Nallah: The lean period discharge available at proposed surface water source is 11 LPS (Source is Being used for irrigation and only limited discharge can be used for the scheme). The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which 1.02 LPS. after the abstraction of water at proposed location Kais nallah merges with another Khad and no further downstream abstraction takes place therefore no further conflict will arise.



GRID MK 6: There are a total of 2 sources proposed in Grid MK6.

Source- Proposed Springs and Nallah Source: There are three proposed spring sources i.e., Narali, Baggi and Regada spring and one proposed nallah i.e., Regada nallah. These proposed sources have enough lean period discharge of 0.8 LPS, 1.0 LPS, 0.8 LPS and 1.54 LPS to meet the water demand of the ultimate design year i.e., 2042 which is 0.83 LPS and 1.49 LPS. The proposed sources are already serving the same command area therefore there will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.

Source- Proposed Head Weir at Sotak Nallah: The lean period discharge available at proposed surface water source is 1.5 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 0.83 LPS. The proposed source is small nallah source identified by JSV department considering the facts that the augmentation of same for water supply will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



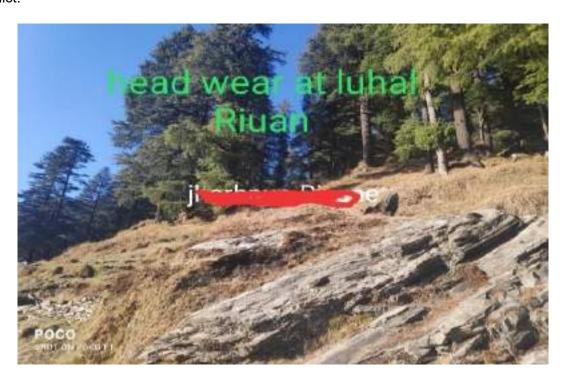
GRID MK 7: There are a total of 2 sources proposed in Grid MK7.

Source- Proposed Diversion Spur at TirthanKhad: The lean period discharge available at proposed surface water source is 5,660 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 3.76 LPS. Abstraction of water is less than 1% so there will be no impact on downstream flow, users, ecosystem, and there will be no water use conflict.



GRID MK 9There are a total of 4 sources proposed in Grid MK9.

Source- Proposed Head weir on Lohal Nallah: The lean period discharge available at proposed surface water source is 2.5 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 1.08 LPS. The source is an existing source and will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



Source- Proposed Head weir on Shaun Nallah: The lean period discharge available at existing surface water source is 2 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 0.41 LPS. The source is an existing source and will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



Source- Proposed Diversion Spur on Joan Khad: The lean period discharge available at proposed surface water source is 100 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 6.71 LPS. Abstraction of water is less than 7% and the proposed source is identified by JSV department considering the facts that the augmentation of same for water supply will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



Source- Proposed Head weir on BhargolKhad: The lean period discharge available at proposed surface water source is 3 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 1.5 LPS. The proposed source is identified by JSV department considering the facts that the augmentation of same for water supply will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



GRID MK 12There are a total of 2 sources proposed in Grid MK12.

Source- Proposed Diversion Spur on KurpanKhad: The lean period discharge available at proposed surface water source is 1038 LPS. The source has enough discharge to meet the water demand of the ultimate design year i.e., 2042 which is 11.53 LPS. Abstraction of water is less than 1% and the proposed source is identified by JSV department considering the facts that the augmentation of same for water supply will not have any impact on downstream flow, users and ecosystem and there will be no water use conflict.



All sources are duly selected keeping in mind the downstream conditions and water requirement. Upto Two kilometres downstream of the sources, it was observed that there will not be any significant water reduction that will impact the users downstream. Sources like Beas River and others have huge water discharge and in this package,1, less than 1% of that discharge is extracting to serve a particular command area or scheme. Khads are tributaries of rivers and similarly nallahs are tributaries of Khads. Nallahs are small water tributaries that are both rain and snow fed. They are used to feed the water demand of a particular area and hence, do not impact the downstream users as they will be having a separate nallah source to feed them. The flow measurement certificates of proposed sources measured by JSV and raw water quality reports are enclosed as Appendix 8 and Appendix 9 respectively.

Thus, as presented above, in terms of water availability and quality of water, selected sources are adequate and suitable to meet the project water demand, and there are unlikely to be any issues related source sustainability during the project life cycle. Rivers are perrineal with seasonal variations. Lean flow is observed during November/December (snow fed) and May/June (rain fed). High discharge is observed in August/September months.

Seven (7) head weirs are proposed under the MZ01 (District Kullu) of Mandi zone subproject. The details are exhibited in table 10-1 below:

Table 10-1: Details of Headweirs in MZ01

S.No.	Proposed Headwork Arrangement at Water Supply Source	Coordinates of Head Weirs	Length/ Height of Head Weir	Lean Period Discharge as the certificate received from JSV	Water Demand	Working Principle
1.	Head Weir with Rectangular chamber on Sotak Nallah	31°53'4.57"N, 77°15'23.58"E.	25 m/ 1 m	1.5 lps	0.75 lps	The proposed height of head weir is 1 m from the bed level of stream which is the medium flow level of the
2.	Diversion spur with Rectangular chamber on TirthanKhad	31°40'55.25"N, 77°17'11.62"E.	40 m/ 1 m	5660 lps	6.8 lps	stream, the arrangement of head weir will provide the sufficient water retention depth at upstream to divert
3.	Diversion Spur with Rectangular chamber on Joan Khad	31°28'35.66"N, 77°27'18.61"E.	35 m/ 1 m	100 lps	6.71 lps	the water from upstream to proposed sump well through proposed rectangular

S.No.	Proposed Headwork Arrangement at Water Supply Source	Coordinates of Head Weirs	Length/ Height of Head Weir	Lean Period Discharge as the certificate received from JSV	Water Demand	Working Principle
4.	Head Weir with Rectangular chamber on BhargodKhad	31°31'24.95"N, 77°23'44.44"E.	30 m/ 1 m	3 lps	0.41 lps	channel by gravity. Once the water retention is achieved, the water in upstream will flow above the head weir to
5.	Head Weir with Rectangular chamber on Shaun Nallah	31°29'0.83"N, 77°29'13.60"E.	15 m/ 1 m	2 lps	1.5 lps	maintain regular flow at downstream.
6.	Head Weir with Rectangular chamber on Lohal Nallah	31°31'39.87"N, 77°22'57.33"E.	10 m/ 1 m	2.5 lps	1.08 lps	
7.	Diversion Spur on KurpanKhad	31°34'3.37"N, 77°34'40.59"E.	50 m/ 1 m	1038 lps	11.53 lps	

Table 10-2 : Details of Sources, Yield and Water Demand for the Year 2042

			Water	% of Water
Grid	Source Type	Yield	Demand	Abstraction
Ona	Course Type	(LPS)	(LPS) for	
			2042_	
	Roe Age Spring	1.2	0.21	17.50
	Phalas Spring	1.15	0.41	35.65
	Chicham Spring	1.8	0.31	17.22
	Thach Nala Spring -1	1	0.15	15.00
	Thach Nala Spring -2	1.5	0.09	6.00
MK1	Mashna Nala Spring	1	0.13	13.00
	Mashna Nala Spring	1.2	0.13	10.83
	Kala Pani (Telang Nala) Spring	2	0.31	15.50
	Chhaya Pani Spring	1.5	0.71	47.33
	Pawanag Spring	1.1	0.71	64.55
	Naya pani spring	1.5	0.23	15.33
	Mankhan (Suragmani) Spring	1.5	0.84	56.00
		16.45	4.23	25.71
	Bore Well at Jhakru	1.2	0.86	71.67
	Bore Well at Badah	5	4.9	98.00
MK2	Bore Well Seobagh,	4.56	2.55	55.92
IVIIXZ	Kais Nala	11	1.02	9.27
	Khuad Nala Spring	3.5	3.27	93.43
	Bore Well at Opposite Bandrol	17.1	4.5	26.32
		42.36	17.1	40.37
	Baggi spring	0.8		
	Narali spring	1	1.65	50.00
MK6	Sotak Nala	1.5		
IVIIXO	Julie nala spring	0.7		
	Rehegda spring	0.8	1.5	49.34
	Rehegda nala	1.54	1	
		6.34	3.15	49.68
	Spring, Bani Naal	0.82		
MK7	Spring Barnaal	1.3	1.49	
	Spring, Lambhari	1	1. 43	32.25
	Spring Lambhari-1	1	1	
L			L	

Grid	Source Type Yield (LPS)		Water Demand (LPS) for 2042_	% of Water Abstraction
	Spring Naga Naal	0.5		
	Tirthan Khad	5660	3.76	0.07
		5664.62	5.25	0.09
	Joan Khad	100	6.71	6.71
MK9	Shaun Nallah	2	0.41	20.50
IVIIVS	Lohal Nallah	2.5	1.08	43.20
	Bhargol Khad	3	1.5	50.00
		107.5	9.7	9.02
MK12	Kurpan Khad	1038	11.53	1.11
IVIIXIZ	Patagi Spring	1.6	0.97	60
	•	1039.6	12.50	1.20
	Total	6876.87	51.93	0.75

Water bodies present in the area are Beas River, Satluj River, Parvati River, TirthanKhad, SaravriKhad, KurphanKhad, BhargolKhad and Joan Khad, and other small khads, nallahs and spring sources. Maps showing these river courses, tributaries, and proposed intake/check dam location etc are given in Figure 21.

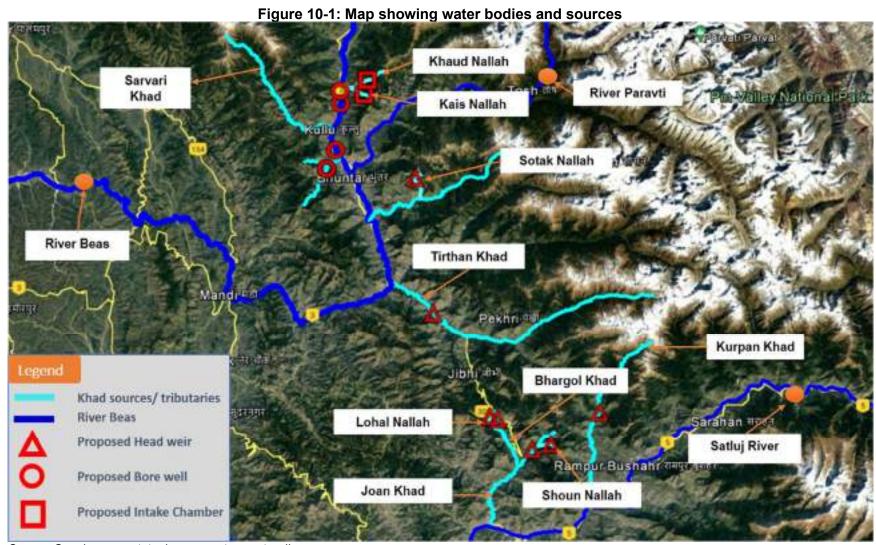
Water sources proposed in MZ-01 are TirthanKhad, Joan Khad, Shaoun Nallah, Khaud Nallah, Kais nallah, Sotak Nallah, Lohal Nallah, Bhargol Nallah and KurpanKhad

- (i) <u>Beas River</u>: Beas river is a snow and rain fed perennial river of length 470 km. Beas river originates from Beas kund near Manali and merges into river Satluj near Kapurthala. Major tributaries of Beas are Tirthan river, Parvati river, NeugalKhad, Gaj Khad etc. Its catchment area consists of parts of district Kullu, Mandi, Kangra in Himachal Pradesh and Gurdaspur, Hoshiarpur and Kapurthala in Punjab. Pong dam of height 133m is built across river Beas near Sansarpur having storage of 8570-million-meter cube.
- (ii) <u>Satluj River</u>: Satluj river is snow and rainfed river of length ~1448 km, River Satluj rises from beyond Indian borders in the Southern slopes of the Kailash mountain near Mansarover lake from Rakas lake and merges with river Chenab near Multan in Pakistan. Major tributaries of Satluj river are Beas river, BakhalKhad, JwalaKhad, ThunagKhad and Soul Khad and its catchment area comprises of Rakshastal lake and parts of district Shimla, Mandi, Kullu, Bilaspur in Himachal Pradesh. Bhakra Nangal Dam of height 226m is a major dam built across the river having storage of capacity 9340 million-meter cube.
- (iii) <u>Parvati River</u>: Parvati river is snow fed river of length ~80 km, River Parvati originates from Parvati paravat and merges with river Beas near Kullu. Tributaries

- of river are small khads and springs, having catchment area of parts of Kullu district.
- (iv) <u>TrithanKhad:</u>TirthanKhad is a snow fed khad of length ~50 km, TirthanKhad originates from near Srikant Mahadev and merges with river Beas near Larji at about 30 km downstream of Kullu. TirthanKhad contributes water from various small khads and springs in the catchment area. Catchment area of the khad comprises of parts of Kullu district.
- (v) <u>SaravariKhad:</u>SaravariKhad is a snow fed khad of length ~30 km, SaravariKhad originates from near Pichli and merges with river Beas near Kullu. SaravariKhad contributes water from various small khads and springs in the catchment area. Catchment area of the khad comprises of parts of Kullu district.
- (vi) <u>Joan Khad</u>: Joan Khad is a snow fed khad of length ~25 km, Joan Khad originates from near Khanag and merges with river Satluj near Behna at about 35 km downstream of Rampur. Joan Khad contributes water from various small khads and springs in the catchment area. Catchment area of the khad comprises of parts of Kullu district Block Anni.
- (vii) <u>BhargolKhad:</u> BhargolKhad is a snowfedkhad of length ~10 km, BhargolKhad originates from near Bachher and merges with Joan Khad near Shamshar. BhargolKhad contributes water from various small khads and springs in the catchment area. Catchment area of the khad comprises of parts of Panchayat Kohila, Manjadesh etc.
- (viii) <u>Shoun Nallah:</u> Shoun Nallah is a snowfed nallah of length ~3 km, Shaun Nallah originates from near Lal Jougni Temple and merges with Joan Khad about 1 Km above the proposed Head weir on Joan Khad. Shoun Nallah contributes water from small springs in the catchment area. Catchment area of the Nallah comprises of parts of Panchayat Manjadesh etc.
- (ix) <u>Khaud Nallah:</u> Khaud Nallah is a snowfedkhad of length ~7 km, Khuad Nallah originates from village Pini and merges with Kais nallah about 300m above the proposed Bore well Bandrol. Khaud Nallah contributes water from small springs in the catchment area. Catchment area of the Nallah comprises of parts of Panchayat Kais etc.
- (x) <u>Kais Nallah:</u> Kais Nallah is a snowfedkhad of length ~6 km, Kais Nallah originates from village Kais and merges with River Beas near proposed Bore well Bandrol. Kais Nallah contributes water from small springs in the catchment area. Catchment area of the Nallah comprises of parts of Panchayat Kais etc.
- (xi) <u>Sotak Nallah:</u>Sotak Nallah is a snowfedkhad of length ~5 km, Sotak Nallah originates from near Temple maharishi Jamdagni at Sees and merges with another khad near Rupi Valley. Sotak Nallah contributes water from small springs in the catchment area. Catchment area of the Nallah comprises of parts of Panchayat Jaistha etc.
- (xii) <u>Lohal Nallah:</u>Lohal Nallah is a snowfedkhad of length ~3 km, Lohal Nallah originates from near Jalori Pass and merges with Bhargolkhad. Lohal Nallah contributes water from small springs in the catchment area. Catchment area of the Nallah comprises of parts of Panchayat Kohila etc.

The major sources of irrigation are small water channels or the Kuhl's in the district and an area of 363 sq. km is brought under irrigation by various sources like canals, tanks, wells, and other sources.

Sources proposed in the project area are located in isolated areas where no potential pollution source is found.



Source: Google maps, state river maps, transect walks

Appendix 11: Format: Consent form of Voluntary Land Donation from land Owners for Project Components and pipe laying

	son/daughter of	
ON THE RESERVE THE TELEPOOR		Service of the servic
		Tehsil and District
		emnly affirm and declare that I jointly own land
comprising of Khasra Nos		_1 hereby give my
consent to donate	m ² of Land to t	he Jal Shakti Vibhag Himachal Pradesh for
construction of	com	ponent under Renovation and Remodelling
of Rural Water supply sche	mes commissioned prior 01.0	1.2000.
Signature of Landowner		Gram Pradhan
1		Panchayat
2		37 5
28		(Sign and Stamp)
	Executive Engineer	
	Executive Engineer	
	E MANAGEMENTS	Division
	Jal Shakti Vibhag (Sign & Stamp)	

Appendix 12: Terms of Reference for Independent Third-Party for Voluntary Land Donation/Negotiated Settlement

1. For any voluntary donation of land, an external independent entity will supervise and document the consultation process and validate the negotiated purchase/ land donation process as per legal requirement.

Terms of Reference for Independent Third-Party Witness

- 2. Anindependentthirdpartyissoughttobeappointedtooverseeandcertifytheprocessof negotiated purchase/ land donation. The third party shall be briefed about his/her expected role and deliverables by the PMU/PIU/PDMSC (safeguard officer/assistant safeguardofficer/SSS).
- 3. **Eligibility.** The third party shall be a representative of the community (for example, a leader of the community with formal/legal standing, a representative of a local NGO/CBO with formal and legal standing) or an institution, without any direct interest in the negotiation process or subproject activity, who is acceptable to each of the concerned parties (PMU/PIU and concerned landowner/donor).
- 4. **Scope of Work.** The role of the third party shall be to ensure a fair and transparent process of negotiation/donation. The envisaged scope: of work shall entail thefollowing:
 - (i) witness and keep a record of meetings held with the concerned parties;
 - (ii) ensure there is no coercion involved in the process of negotiated purchase/land donation;
 - (iii) ensure that the donor(s) are not coming from vulnerable groups/poor families;
 - (iv) ensure that the preferences and concerns of the land owner/donor related to access, selection of site within lands held, etc. are recorded and any stipulated conditions met;
 - (v) ensure that the negotiated purchase/land donation agreement is drafted in a fair and transparent manner;
 - (vi) confirm that the offered/agreed price is fair and meet the market price of the land with similar value and condition in the area;
 - (vii) ensure the negotiated purchase/donation does not result any negative impacts to the third party associated with the purchase/donation activity;
 - (viii) identify and recommend mitigation measures to land owner/donor/affected third party, ifrequired;
 - (ix) ensure that taxes, stamp duties and registration fees for purchased/donated land are borne by government; and
 - (x) submit a report and signed certificate as witness to the purchase/ donation and transferprocess.
- 5. **Deliverables:** The details of the meetings, socioeconomic background of the land/assets owner(s) and a certificate / reports as witness to the purchase/donation process and mitigation measures to owner/donor, if any, shall be submitted by the third party to PMU/PIU and owner/donor in the local language and share with ADB for review.

Appendix 13: Sample Certification Formats

appointed a plot no Who is a sig	sertify that Mr./Mrs. Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Date	
Officers JSV	and land donor
1	
2	
l,	of(address) certify that I was
witness to of plot	the process of negotiated purchase / land donation (details from XXXXXXXXX landowners'
names). I ce	ertify that:
1. 2.	The process of purchase / donation of the said land was transparent; the landowner(s) was/were happy to sell/donate the land for the welfare of thecommunity. No coercion was used in the purchase/donationprocess.
3.	Land transfer costs (registration fee and stamp duty) were borne by the government and not by theowner/donor.
4.	All concerns expressed by the owner/donor as agreed, were addressed and no pending issues remain.
5.	Thefollowingmitigationmeasureswereidentifiedandimplemented/providedtothela
6.	nd owner/donor. Attached are the minutes of meetings held between project proponents and the land owner/donor, which I was witnessto.
Signed/ Nai	me
Date:	Place:
	es of meetings held between land owner/donor and project proponents

Appendix 14: Grievance Registration Format (to be available in local language)

The queries and comm	nents regarding pro		roject welcome: tion.	s complaint	s, sug	gestions,
Aggravated persons may provide grievance with their name and contact information to enable us to get in touch for clarification and feedback.						
	chooses not to inclential, please indica					
Thank you.						
Date		Place of regist	ration			
Contact Informa	tion/Personal Det	ails				
Name			Gender	* Male *Female	Age	
Home Address			l			.1
Place						
Phone no.						
E-mail						
Complaint/Sugg how) of your grie	estion/Comment/0 vance below:	Question Please	e provide the det	ails (who, w	hat, wh	nere and
If included as atta	achment/note/letter,	, please tick here	e:			
How do you want us to reach you for feedback or update on your comment/grievance?					ance?	
FOR OFFICIAL USE ONLY						
Registered by: (Name of Official re	gistering grievan	ice)			
Mode of commu	nication:					
Note/Letter E-mail Verbal/Telephonic						
Reviewed by: (N	Reviewed by: (Names/Positions of Official(s) reviewing grievance)					
Action Taken:						
Whether Action	Taken Disclosed:		Yes No			

٨	/lea	ns	of	Die	cl	nsi	ıre	•

Appendix 15: Involuntary Resettlement Checklist

Project Data					
Country/ Project No./ Project Title	a)	Himachal Pradesh Rural Drinking Water Improvement ar Livelihood Project (HPRDWILP)			
Subproject title	b)	Mandi Zone Package-3 (MZ-01)			
Project Executing Agency	c)	Project management Unit, Jal Shakti Vibhag (JSV)			
Project Implementing Agency	d)	Project Implementation Unit, Jal Shakti Vibhag (JSV)			
Modality	e)				
[] Project Loan [] Program Loan [] Financial Intermediary [] General Corporate Finance					
[√] Sector Loan [] MFF [] E	mergen	cy Assistance [] Grant			
[] Other financing modalities:					
IR Impact categorization $[\sqrt{\ }]$	New	[] Recategorization — Previous Category []			
[] []	[]			
[] []					
[√] [√]					
Prepared by:					
Social Development Specialist (Nam Date: NA	ne, title,	signature): xxxxxx,			
For Project Implementing Agency (N Date:	ame, tit	le, signature): Mr. xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			
For Project Executing Agency (Name Date:	e, title, s	signature): Mr. xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?		~		No land acquisition is envisaged under the Mandi Zone Package-3 (MZ-01)
2. Is the site for land acquisition known?				Not Applicable
3. Is the ownership status and current usage of land to be acquired known?				Not Applicable
4. Will easement be utilized within an existing Right of Way (ROW)?	\			Pipelaying will be through Government land, village roads in this package,
5. Will there be loss of shelter and residential land due to land acquisition?				Not Applicable

Not Known	Remarks
	Not Applicable
	Not Applicable,
	Not Applicable
	Not Applicable
ignated park	s and protected areas
	Not Applicable
splaced by th	ne Project? [√] No [] Yes
	splaced by th

Are any displaced persons from indigenous or ethnic minority groups? [$\sqrt{\ }$] No [] Yes

Appendix 16: Indigenous People Impact Checklist

Project Data							
Country/Project No./Project		Himachal Pradesh Rural Drinking Water Improvement and Livelihood Project					
Title	f)	(HPRDWILP)					
Subproject title	 g)	Mandi Zone Package-3 (MZ-01)					
Project Executing Agency		Project Management Unit, Jal Shakti Vibhag (JSV)					
Project Implementing Agency	Project Implementation Unit, Jal Shakti Vibhag (JSV)						
Modality	j)						
[] Project Loan [] Program Loan		[] Financial Intermediary [] General Corporate Finance					
[\frac{1}{3} Sector Loan[] MFF [] E	Eme	rgency Assistance [] Grant					
[] Other financing modalities:							
IP Impact categorization [√] New [] Recategorization — Previous Category []							
Category A: Significant IP impact							
Category B: Non-significant IP in	Category B: Non-significant IP impact						
Category C: No IP impact √							
Subproject requires the broad community support of affected Indigenous Peoples communities [] Yes [√]No							
Prepared by:							
Social Development Specialist (Nan	ne, t	itle, signature): xxxxxxxxxxxx					
Date:							
NA							
For Project Implementing Agency (N	Vam	e, title, signature): xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx					
Date:							
For Project Executing Agency (Nam	ne, ti	tle, signature): xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx					
Date:							

KEY CONCERNS	YES	NO	NOT	Remarks
(Please provide			KNOWN	
elaborations				
on the Remarks				
column)				
A. Indigenous				
Peoples				
Identification				
1. Are there socio-	✓			As per National Rural Drinking Water Program (NRDWP)
cultural groups				website, scheduled tribes comprise 2.78% of the total
present in or use the				population in the sub- project area. 10 The scheduled tribe
project area who may				population is scattered, is well-assimilated and does not
be considered as				retain the characteristics of indigenous peoples groups. No
"tribes" (hill tribes,				impact on indigenous people/communities, involving direct
schedules tribes, tribal				or indirect impact to the dignity, human rights, livelihood
peoples), "minorities"				systems or territories or natural or cultural resources that
(ethnic or national				are used, owned, occupied or claimed as ancestral domain
minorities), or				by scheduled tribes, is anticipated.
"indigenous				
communities" in the				
project area?				
2. Are there national or	✓			
local laws or policies				
as well as				
anthropological				
researches/studies				
that consider these				
groups present in or				
using the project area				
as belonging to "ethnic				
minorities", scheduled				
tribes, tribal peoples,				
national minorities, or				
cultural communities?				
3. Do such groups		✓		The scheduled tribe in subproject areas do not stay in tribal
self-identify as being				groups/community enclaves and are well-assimilated in
part of a distinct social				society
and cultural group?				
4. Do such groups		./		
maintain collective		v		
attachments to distinct				
habitats or ancestral				
territories and/or to the				
natural resources in				
these habitats and				
territories?				

¹⁰HTTPS://EJALSHAKTI.GOV.IN/Imisreports/Reports/Basicinformation/Rpt_RWS_RURALPOPULATIONS.Aspx?RE P=O&RP=Y Data as on 1 April 2021.

KEY CONCERNS	YES	NO	NOT	Remarks
(Please provide	'L3	140	KNOWN	ivemans
elaborations			KINOWIN	
on the Remarks				
column)				
5. Do such groups		✓		
maintain cultural,				
economic, social, and				
political institutions				
distinct from the				
dominant society and				
culture?				
6. Do such groups		✓		
speak a distinct				
language or dialect?				
7. Has such groups		✓		
been historically,		▼		
socially and				
economically				
marginalized,				
disempowered,				
excluded, and/or				
discriminated against?				
8.Are such groups				Not applicable, as scheduled tribes are scattered and
represented as				assimilated and there are no such groups or communities
"Indigenous Peoples"				in the subproject areas.
or as "ethnic				in the subproject disus.
minorities" or				
"scheduled tribes" or				
"tribal populations" in				
any formal decision-				
making bodies at the				
national or local				
levels?				
B. Identification of				
Potential				-
Impacts		√		
9.Will the project		Y		
directly or indirectly				
benefit or target				
Indigenous Peoples?			-	
10.Will the project		✓		
directly or indirectly				
affect Indigenous				
Peoples' traditional				
socio-cultural and				
belief practices? (e.g.,				
child-rearing, health,				
education, arts, and				
governance)				

KEY CONCERNS	YES	NO	NOT	Remarks
(Please provide			KNOWN	Romano
elaborations			I	
on the Remarks				
column)				
11.Will the project				
affect the livelihood		\checkmark		
systems of Indigenous				
Peoples? (e.g., food				
production system,				
natural resource				
management, crafts				
and trade,				
employment status)				
12.Will the project be		▼		
in an area (land or				
territory) occupied,				
owned, or used by				
Indigenous Peoples,				
and/or claimed as				
ancestral domain?				
C. Identification of				
Special				
Requirements				
Will the project				
activities include:				
13. Commercial		✓		
development of the				
cultural resources and				
knowledge of				
Indigenous Peoples?				
14. Physical		✓		
displacement from				
traditional or				
customary lands?				
15.Commercial		\checkmark		-
development of				
natural resources				
(such as minerals,				
hydrocarbons, forests,				
water, hunting or				
fishing grounds) within				
customary lands				
under use that would				
impact the livelihoods				
or the cultural,				
ceremonial, spiritual				
uses that define the				
identity and				
community of				
Indigenous Peoples?				

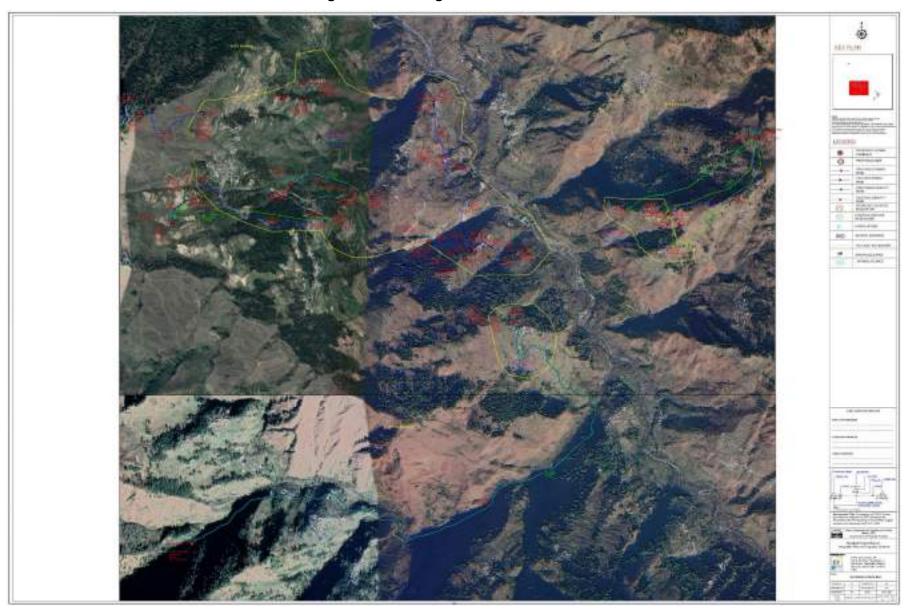
KEY CONCERNS (Please provide elaborations on the Remarks	YES	NO	NOT KNOWN	Remarks
column) 16.Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		✓		
17.Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		√		No land belonging to the scheduled tribes will be acquired.

Anticipated project impacts on Indigenous Peoples

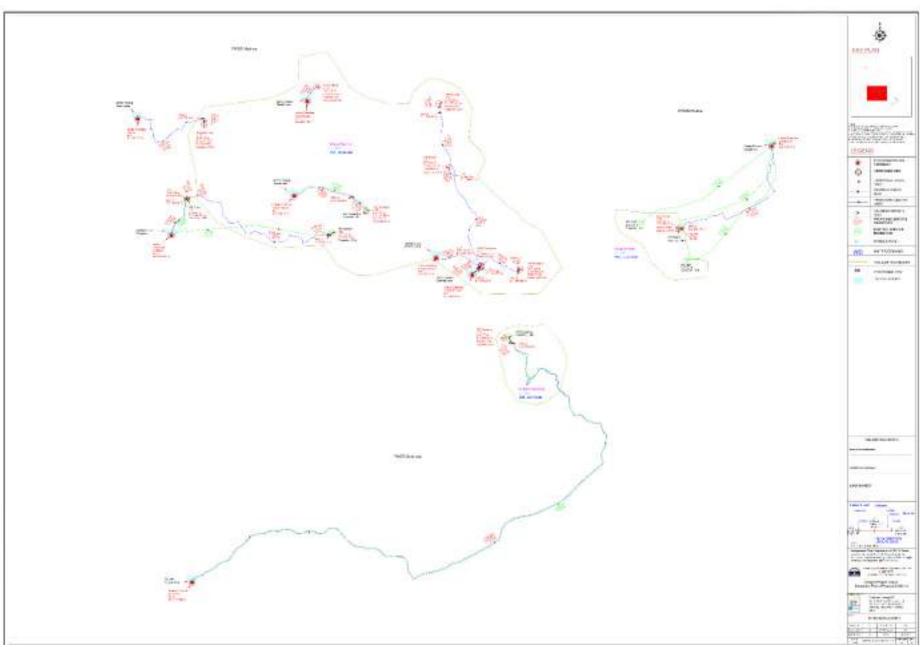
Project component/activity/ output	Anticipated positive effect	Anticipated negative effect
Total 25 intakes, 16 WTPs, 12 pump houses, 16 MBRs and 72 SRs, distribution network about ~270 Km and 8247 Metered Connection are proposed under the package MZ01.	The scheduled tribe population in project coverage area will benefit from water supply house service connections. However, it is scattered and does not conform to the ADB SPS definition of indigenous peoples groups.	No adverse impacts to indigenous people's groups are identified.

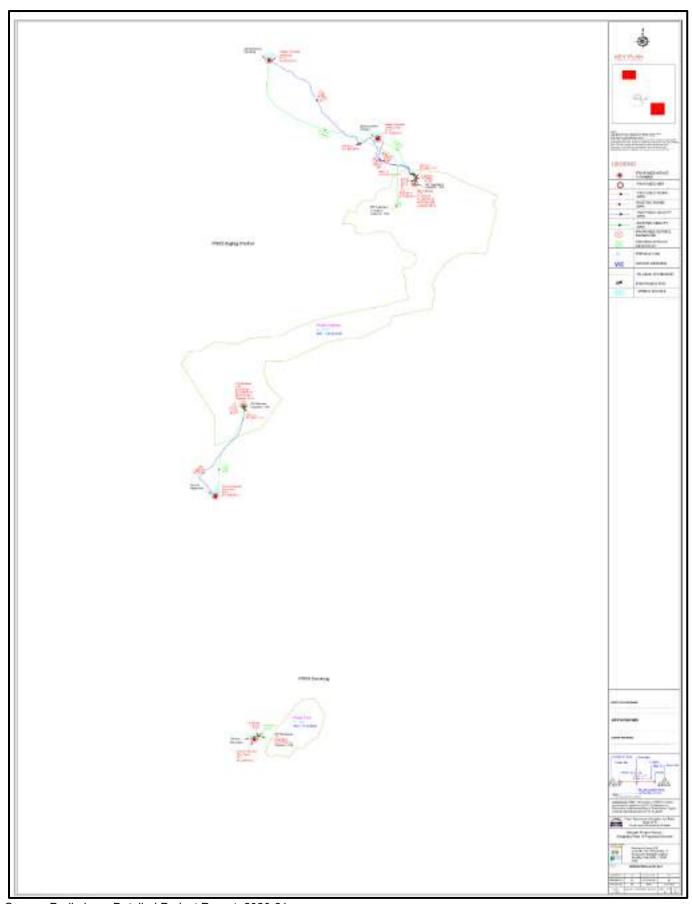
Appendix 17: Integrated Plans

Figure 17-1 – Integrated Plan GRID MK 1

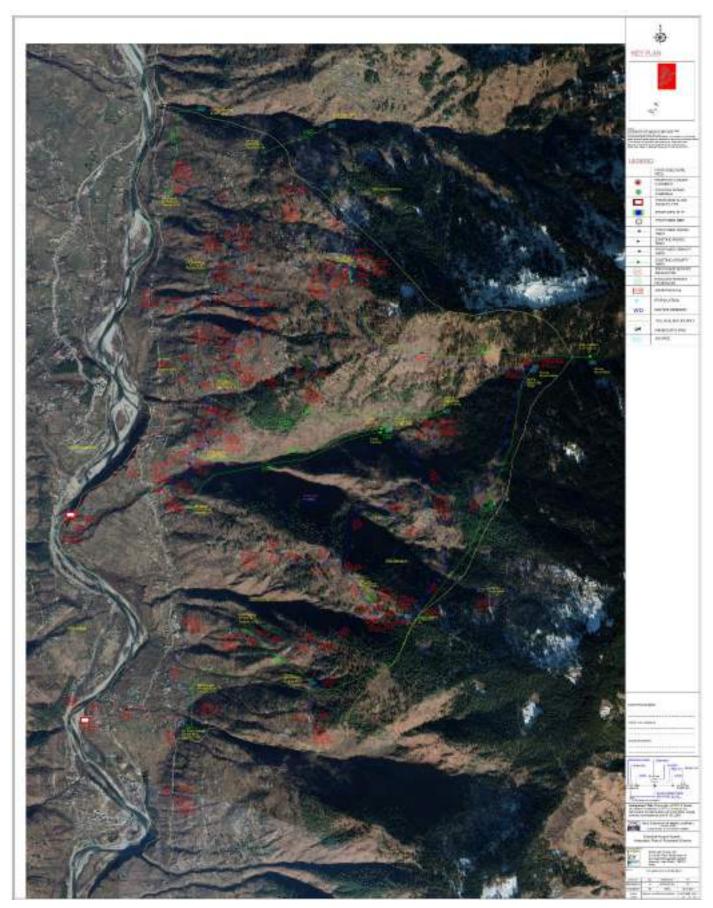


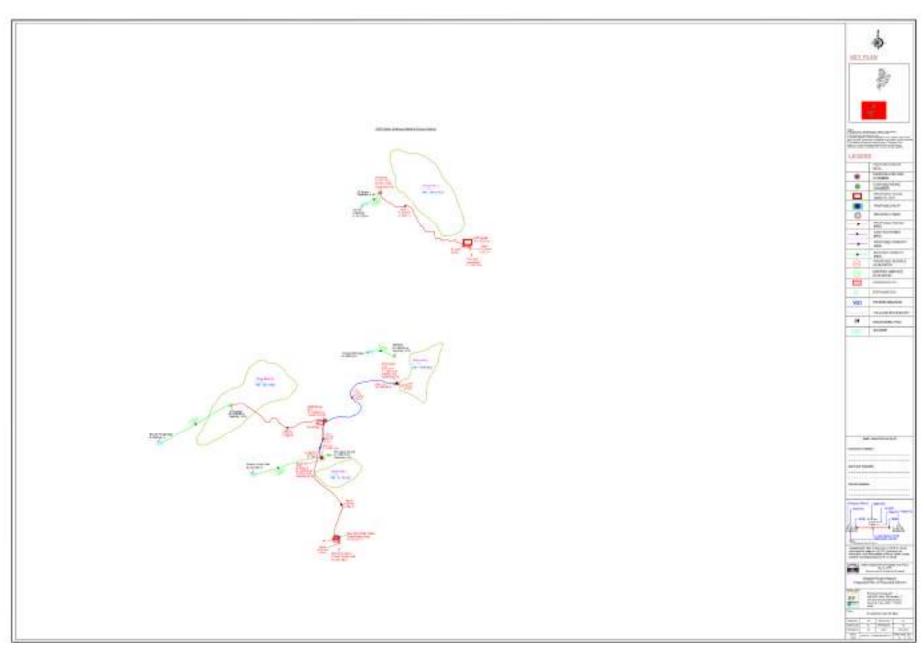












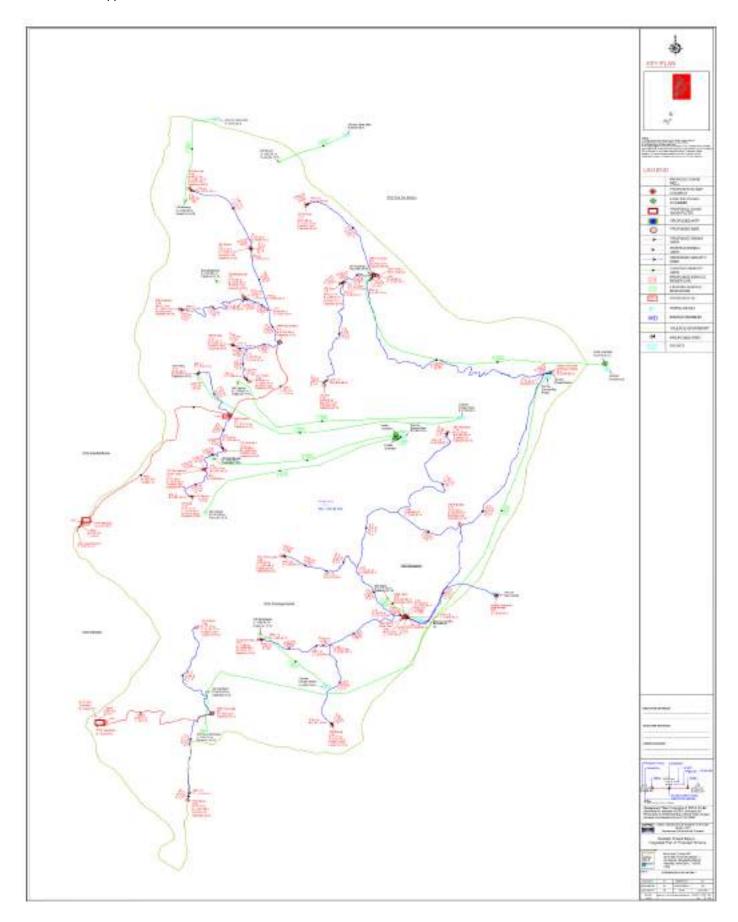
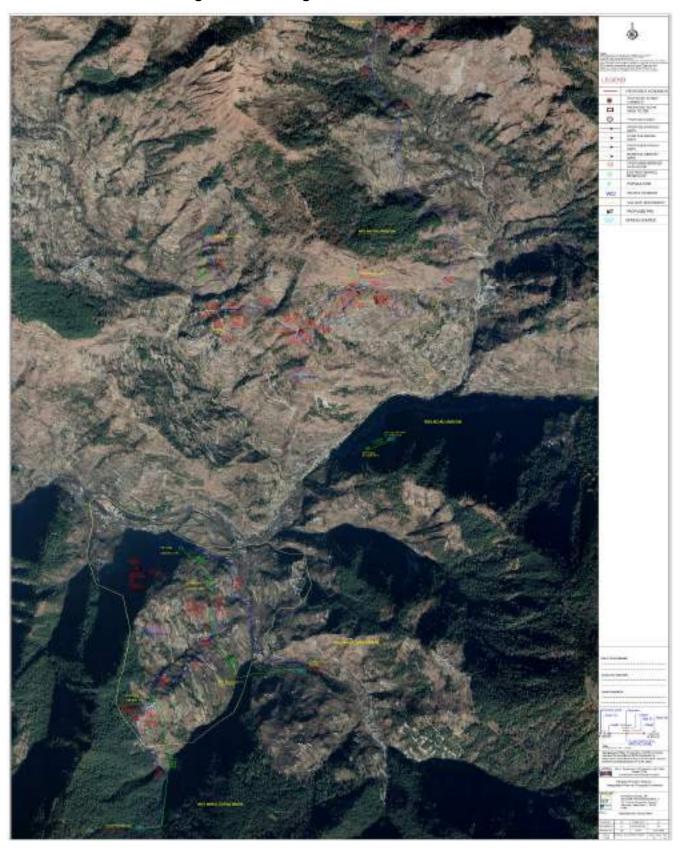
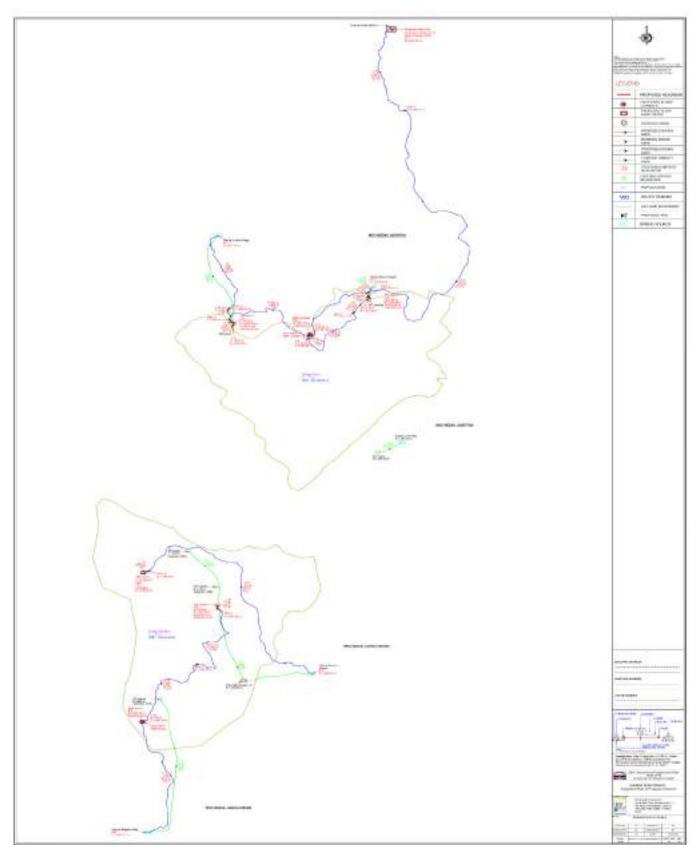


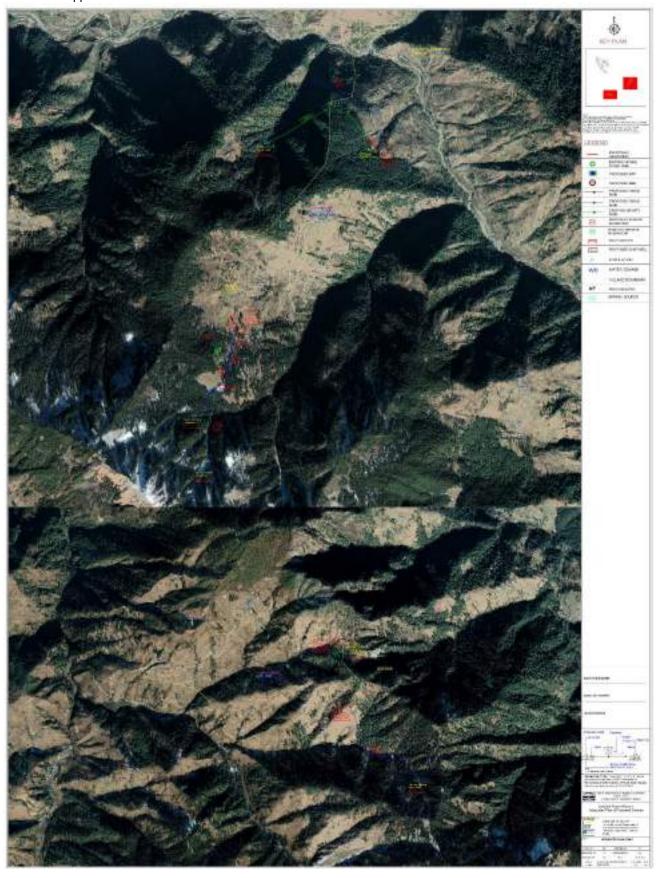
Figure 17-3 – Integrated Plan GRID MK 6

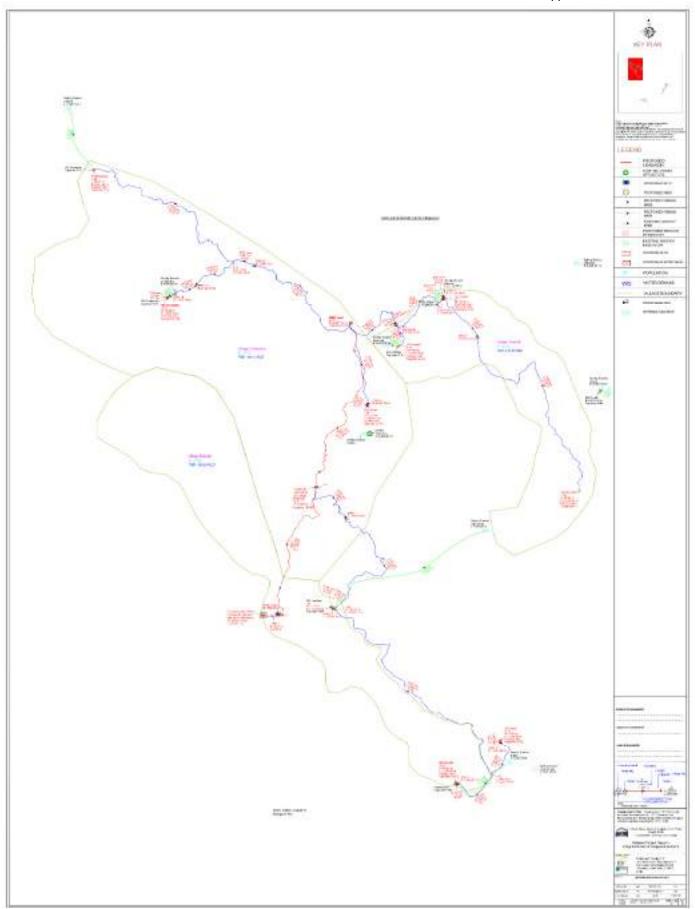




Source: Preliminary Detailed Project Report, 2020-21

Figure 17-4 – Integrated Plan GRID MK 7





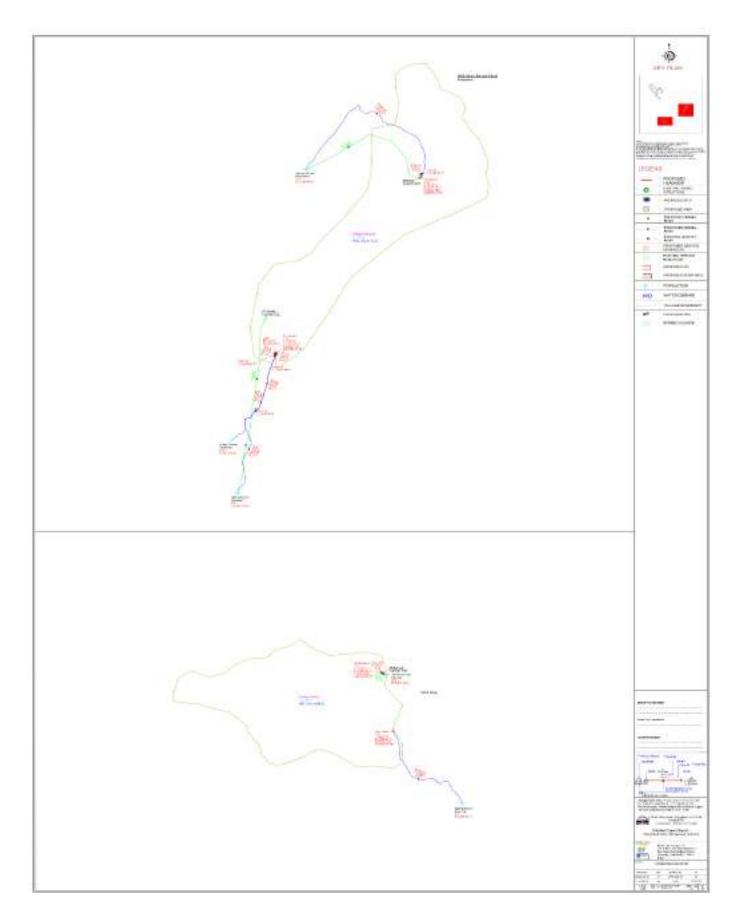
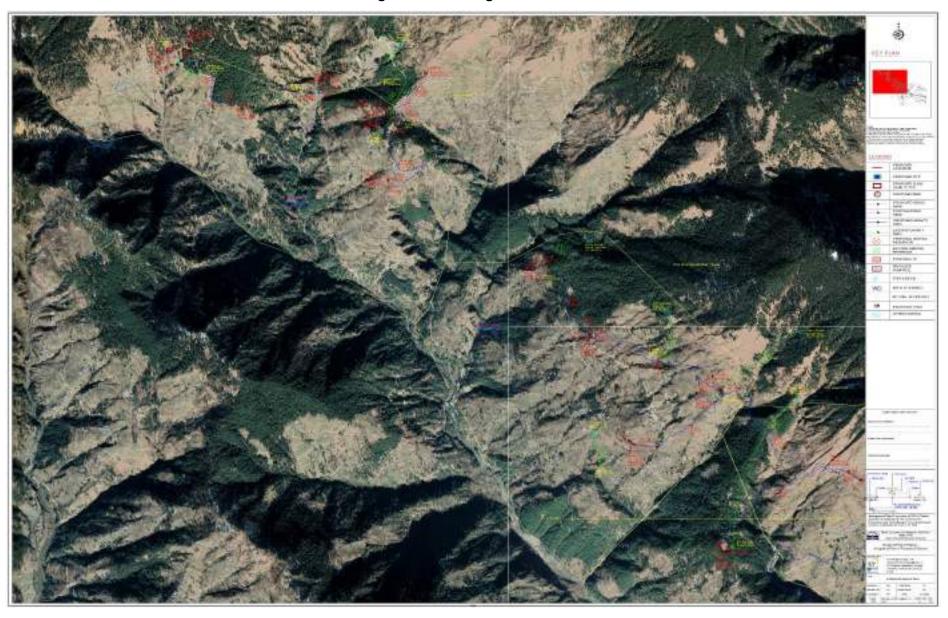
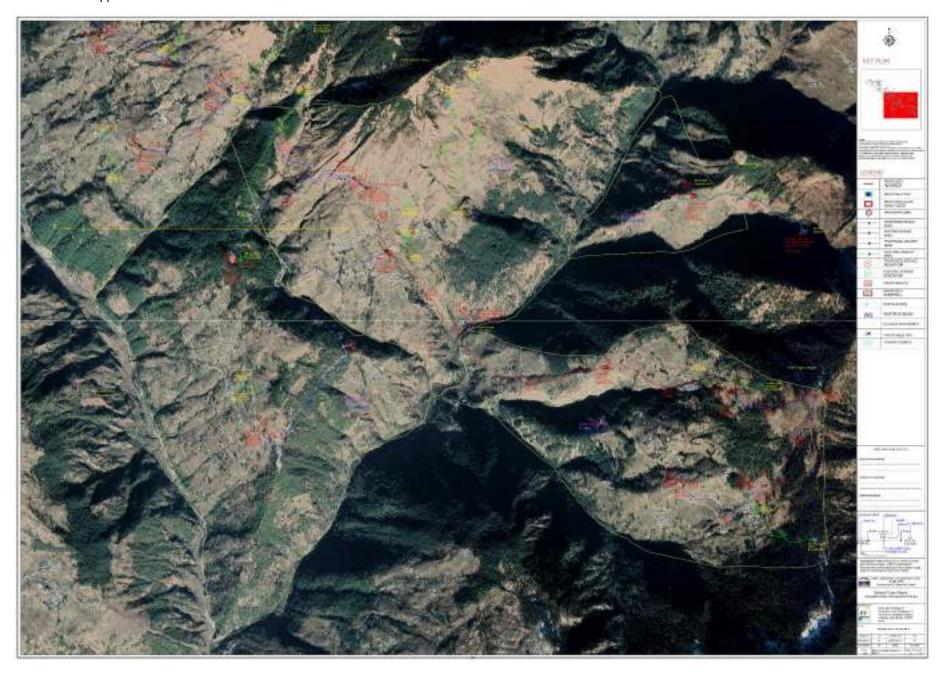
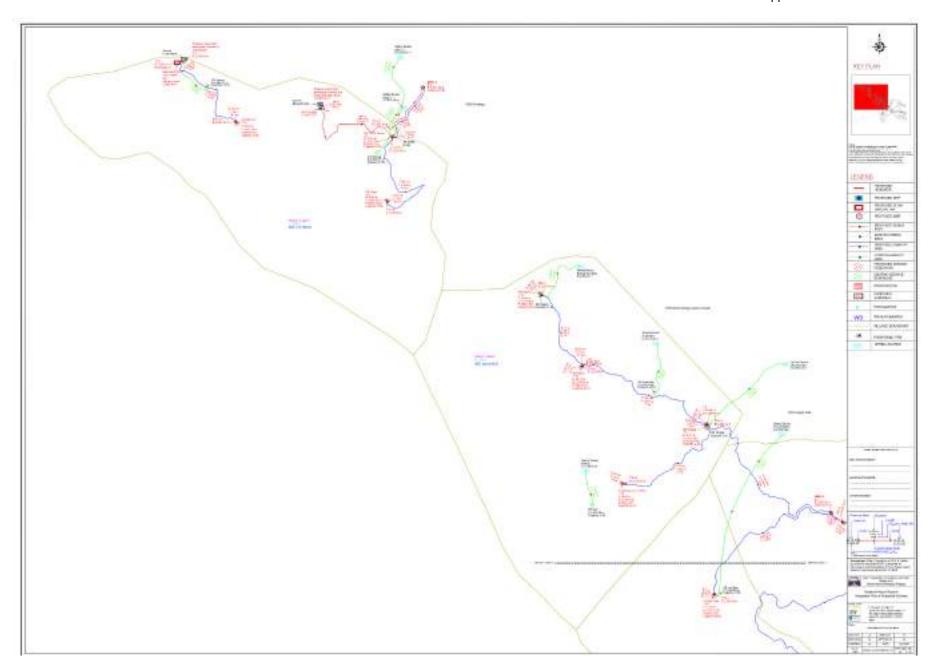


Figure 17-5 – Integrated Plan GRID MK 9







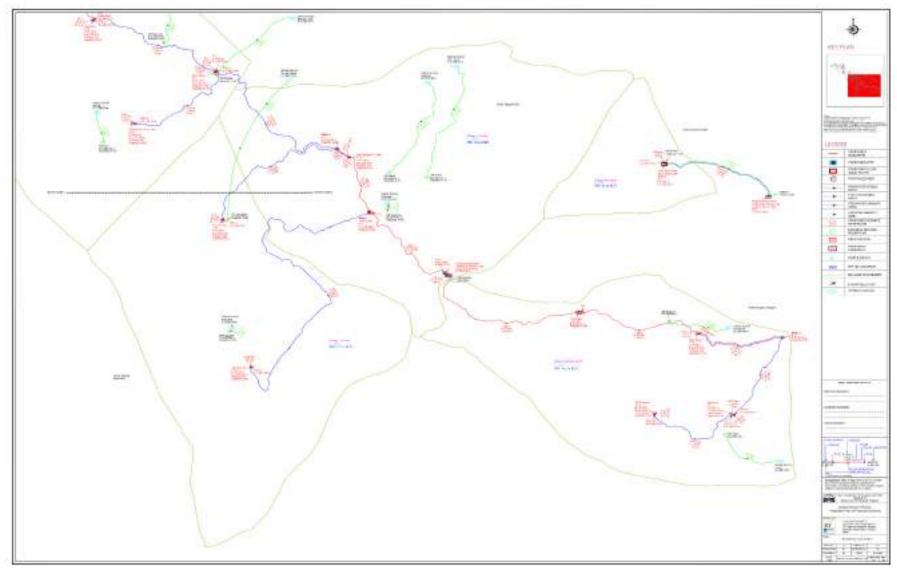


Figure 17-6 – Integrated Plan GRID MK 12

