

पत्रांक-

कार्यालय निदेशक / वन संरक्षक, नन्दादेवी बायोस्फियर रिजर्व, गोपेश्वर।

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2023

वन मित्र कॉसेंटर — 920 800 8000 गोपेश्वर 12 - 1दिनांक 19 जून

2931 सेवा में, अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी, वन संरक्षण,

देहरादून।

इन्दिरा नगर, फॉरेस्ट कॉलोनी,

विषय:—

माननीय मुख्यमंत्री जी घोषणा संख्या 281/2017 के अन्तर्गत जनपद चमोली के गैरसँण शहर एवं एडज्वाईनिंग आबादी में पेयजल आपूर्ति हेतु रामगंगा नदी पर बांध निर्माण हेतु 4.95 है0 वन भूमि हस्तान्तरण प्रस्ताव। प्रस्ताव संख्या FP/UK/Water/144831/2021.

सन्दर्भ:-

प्रभागीय वनाधिकारी, केदारनाथ वन्यजीव प्रभाग, गोपेश्वर का पत्र संख्या 6434/12-1, दिनांक 16.06.2023 |

महोदय,

उपरोक्त विषयक प्रकरण पर प्रभागीय वनाधिकारी, केदारनाथ वन्यजीव प्रभाग, गोपेश्वर ने अपने संदर्भित पत्र द्वारा बिन्दुवार आपत्तियों का निराकरण करते हुए आख्या इस कार्यालय को उपलब्ध कराई गई है।

अतः उक्त प्रकरण पर प्रभागीय वनाधिकारी द्वारा प्रेषित आख्या को मय संलग्कों सहित 03 प्रतियों में अग्रेत्तर कार्यवाही हेतु प्रेषित की जा रही है।

संलग्न :- यथोपरि।

भवदीय

मुख्य वन संरक्षक / निदेशक नन्दादेवी बायोरिफ्यूर रिजर्व, गोपेश्वर।

2931 /12-1

प्रतिलिपि: - उप वन संरक्षक, केदारनाथ वन्यजीव प्रभाग, गोपेश्वर को आपके संदर्भित पत्र के कम में सूचनार्थ प्रेषित।

मुख्य वन संरक्षक / निदेशक नन्दादेवी बायोस्फियर रिजर्व, गोपेश्वर।



कार्यालय प्रभागीय वनाधिकारी केदारनाथ वन्यजीव प्रभाग, गोपेश्वर।

Office of Divisional Forest Officer Kedarnath Wildlife Division, Gopeshwar.

Phone @ Fax No&01372252149			Email- dfokedarnath@gmail.com	
पत्रांकः— सेवा में,	6434	/12-1	गोपेश्वर,	दिनांक 16 06 2023

अपर प्रमुख वन संरक्षक, एवं नोडल अधिकारी, वन संरक्षण, इन्दिरानगर फॉरेस्ट कॉलोनी, उत्तराखण्ड, देहरादून।

द्वारा :- मुख्य वन संरक्षक / निदेशक, नन्दादेवी बायोस्फियर रिजर्व गोपेश्वर।

विषय:— माननीय मुख्यमंत्री घोषणा संख्या 281/2017 के अन्तर्गत जनपद चमोली के गैरसँण शहर एंव एडज्वाईनिंग आबादी मे पेयजल आपूर्ति हेतु रामगंगा नदी पर बांघ निर्माण कार्य हेतु 4.95 है0 वन भूमि का गैर वानिकी कार्य हेतु सिंचाई विभाग को प्रत्यावर्तन। (Online proposal no FP/UK/Water/144831/2021)

संदर्भः— भारत सरकार पर्यावरण ,वन एवं जलवायु परिवर्तन मंत्रालय, एकीकृत क्षेत्रीय कार्यालय देहरादून के पत्रांक 8 वीं / यू.सी.पी.09 / 44 / 2023 / एफ.सी / 98 दिनांक 28.04.2023

महोदय,

उपरोक्त विषयक के सम्बन्ध में अवगत करना है कि भारत सरकार पर्यायवरण एवं वन मंत्रालय क्षेत्रीय कार्यालय देहरादून के उक्त संदर्भित पत्र द्वारा निर्गत आपित्तयों की बिन्दुवार निराकरण आख्या निम्न प्रकार प्रस्तुत है—

क0 सं0	आपित्तयां	निराकरण
1	The Justification provided to locate the project in forest area is vague and does not elucidate on the technical reasons for locating the project in the forest area. Further, no alternatives have been explored for the project. The State Government is required to provide detailed justification based on technical parameters and establish the inescapability of locating the project on the proposed site.	grounds showing the compulsion of locating the project in the proposed forest area is enclosed and it has been uploaded accordingly. Based on the above technical reports many other alternative sites were taken under consideration but not found suitable for the project.
2	State Govt. is requested to submit necessary comments as par ministry guidelines dated 24.01.2022 regarding non site-specific activity.	Guideline dated 24.01.2022 of MoEF for non- site-specific projects states that – utilization of forest area for establishing industries, construction of residential colonies, institutes, disposal of fly ash,

		rehabilitation of displaced persons etc. are non-site- specific activities and cannot be considered on forest land as a rule. As the present project is proposed for the construction of a dam for the supply of drinking water to the increasing population of Gairsain and Bararisain towns. It is also clarified here that apart from increasing population of Gairsian town Bararisain town is a newly established summer capital of Uttarakhand State so the need of drinking water has been increased for multiple times of present need and the present drinking water supply facility is not able to meet the demand of drinking water of present time. As the Proposed Project is not for the establishment of industries, construction of residential colonies, institutes, disposal of fly ash, rehabilitation of displaced persons but it is for the basic need of huge population of abovementioned towns. Hence, it is humbly requested to the ministry to accept this proposal for forest land transfer under the provisions of Forest Conservation Act 1980.
3	It is observed from the DSS analysis of the area proposed for diversion that KML file of 3.97 ha is uploaded instead of 4.95 ha. The State Govt. is requested to upload the correct KML file.	been done as per the actual need of forest land area and the corrected KML file has
4	Area proposed for muck dumping is mentioned as 0.22 ha in the component wise breakup at Para b 2.4 in part I. However, in the muck disposal plan area is mentioned to be 0.15 ha. The State Govt. is requested to	The Correction in Muck Disposal Plan has been done and revised muck disposal plan has been uploaded & attached.

5		
1	comment on this discrepancy and make necessary corrections.	
5	In the component wise break-up 0.03 ha area is mentioned against the component named 'others'. It is requested to submit the clear details in this regard.	Control Room area 0.02 hec.& Inspection Room area 0.01hec. total 0.03hec
6	In the component wise break-up details of how the water stored or impounded shall be carried to the beneficiaries is not mentioned. The State Govt. is requested to provide information in this regard.	phase of proposal has to be submitted by Jal Nigam Uttrakhand Karnaparyag in which total details of uplifting and supply mechanism of water will be given.
7	provide/upload the NPV calculation sheet as per the new rates.	been uploaded.
8	proposal. The State Govt. is requested to provide detail of the trees falling in the permanent submergence zone and those falling in the temporary submergence zone. The Forest department may also work out the number of trees which could be saved in the temporary submergence zone. Also, the trees which are required for wildlife purposes viz snags could also be listed by the forest department.	provision of temporary submergence zone in the project. Hence, the total number of trees i.e., 955 mentioned in proposal have to be felled.
9	The detail provided in the part II of the proposal indicate the presence of wildlife in and around the proposed area. Hence detail of the impact of the project on wildlife and suggestive imitative measures is requested to be provided.	Prospective impacts on wildlife of the area and its mitigation plan is enclosed here and it has been uploaded on portal.

The proposal affects large number of Oak. It is certified that the proposed CA area is Hence the State Govt. is requested to provide | quite suitable for planting Oak plants. And its comment if the CA area is suitable for planting oak plants.

it will be ensured that maximum number of oak plants will be planted in this CA area.

अतः अनुरोध है कि विषयांकित प्रकरण में अग्रेत्तर कार्यावाही करने की कृपा करे।

संलग्न:- उपरोक्तानुसार

भवदीय,

(इन्द्र सिंह नेगी)

प्रभागीय वनाधिकारी, केदारनाथ वन्यजीव प्रभाग,गोपेश्वर।

संख्या

दिनाँकित

अधिशासी अभियन्ता, सिंचाई खण्ड थराली को सूचनार्थ प्रेषित। प्रतिलिपि:-

> (इन्द्र सिंह नेगी) प्रभागीय वनाधिकारी, केदारनाथ वन्यजीव प्रभाग, गोपेश्वर।

Justification for site selection

Gairsain is a town and Nagar Panchayat in district Chamoli of Uttarakhand State and has been notified as the summer Capital of the State vide notification dated 08.06.2020. It is about 262 km away from Dehradun, the winter Capital of Uttarakhand State. Its average elevation from MSL is 1650.00 m. The annual average temperature and rainfall of the town is around 15°C and 1435 mm respectively. It is located almost in the centre of the Garhwal and the Kumaon regions of the State which is the major aspect such as easy accessibility of the people of both regions Garhwal and the Kumaon to Gairsain, to be selected as State's summer Capital. Legislative Assembly Building of the has already been constructed at Gairsain in 2013.

At present, the domestic water demand is met out from the natural water streams originating from the mountains which got almost dried from the month of December onwards. Due to very less availability of water in the natural streams between the months of January to mid of July there is a severe scarcity of drinking water. On the other hand, drafting of water from ground water source is practically not feasible due to availability of ground water at long depth in this hilly area. Water has to be supplied through tankers in lean period i.e. in the months of March, April, May, June and mid of July,in order to solve the above problems of domestic supply at Gairsain town, Gairsain Drinking Water Project, Chamoli is proposed to be constructed 34.30 high dam (from foundation level) having live storage of 0.35 MCM across river Ramganga near Gairsain to meet the drinking water requirement of 7 MLD to Gairsain town as its increasing demand of domestic water due to development in political & official activities at Gairsain. But, after declaration of Gairsain town as 'Summer Capital' of the State, future demand of domestic water supply increased to 7 MLD as assessed by Pey Jal Niman Nigam, Uttarakhand for year 2070. Also, to cater the growing demand of drinking water of Gairsain town and nearby areas, Hon'ble Chief Minister, Govt. of Uttarakhand has announced (C.M. announcement no. 281/2017 dated 21/07/2017) to create a reservoir in Gairsain for drinking water purpose for Gairsain town and adjoining areas.

For site selection of the storage structure i.e. the dam, a Committee comprising of Forest Department, Revenue Department, Pey-Jal Nirman Nigam and Irrigation Department of the State of Uttarakhand were jointly investigated the various possible sites (joint survey, comparision of site reports attached) and finally found two sites for further assessment. After detail comparison (report attached), site on Ramganga river in the upstream of Government Polytechnic College, Gairsain finalised for further investigations. The proposed site found suitable for construction of dam/reserviour according to detail Geological investigation such as uniaxial compression test, rock profile, geological log, permablity test repots etc. Geologist (Report attached) also recommends selected site for construction of dam.

Valley width is 8 mt. on proposed site which is minimum among all possible site, hard rock with no overburden riverbed material found on site. Sufficent space available upstream and down stream of selectd site. In the context of overall biodiversity of the region, the impact will be very low owing to nature of project.

Irrigation subdivision Gairsain Irrigation subdivision
Gairsain

392 दिनांक 09 / 07 / 2018 को गैरसैंण शहर हेतु जल आपूर्ति के सम्बन्ध में सम्पन्न हुयी वंठक का कार्यवत। पश्चक 688 /सिं.ख.थ /वैराज / थराली / दिनाँक: 09/07/2018।

उपरोवत संदर्भित पंत्राक के कम मे दिनांक 09/07/2018 को हुयी वैटक मे निम्न विभागों के प्रतिनिधि उपस्थित हुए।

1 - श्री हरिए नेगी वन क्षेत्राधिकारी वन विभाग गैरसैंण।

2- थी आन्ती प्रसाद डिमरी उपराजस्व गैरसैंण।

असे महेन्द्र कुमार अपर सहायक अभियन्ता पेयजल निगम कर्णप्रयाग।

वैठक मे उपिश्थित सभी प्रतिनिधियों से विचार विर्मश किया गया जिसमें दो स्थान ऐसे पाये गये जो गैरसैंण शहर की औसत उचाई से अधिक उचाई पर रिथत है:

1 - ग्राम कनख्वाली में रामगंगा नदी जोकि गैरसैण शहर से लगभग 13.00 कि0मी0 दूरी पर 13 हार्थी

2 - ग्राभ भेहर गांव रामडा मे स्थित सिलकोट गेदेरा जोकि गैरसैणं 11.00 कि0मी0 दूरी पर रिथत है।

उपरोक्त दोनो स्थानो से ग्रीष्म काल को छोडकर बाकी के दिनों में गैरसँण को प्रानी की आपूर्ति की जा सकती है। ग्रीष्म काल के दिनों में उपरोक्त दोनों स्थानों में पानी की मात्रा इतनी कम हो जाती है की गैरसेंण शहर को पानी की आपूर्ति हो पाना सम्भव नहीं है क्योंकिं कुछ पानी जीव जन्तुओं की आवश्यकता हेतु भी उपरोक्त दोनों स्थानों पर उपलब्ध रहना आवश्यक है। ऐसी रिथति मे ग्रीष्म काल मे गैरसैंण की आबादी को पानी की आपूर्ति के लिए रटोर रिजरवायर बनाया जाना आवश्यक है। ग्रीष्म काल के अलावा बाकी के दिनों में उपरोक्त दोनो स्थानो से ग्रेविटी द्वारा पानी की आपूर्ति की जा सकती है।

यह भी देखा गया कि दूसरे बेसिन से भी पानी की सम्भावना तलासी गयी जिसमे आटा गाढ बेसिन से भी पानी की आपूर्ति हेतु विचार विर्मश किया गया। विवार विर्मश के परचात यह पाया गया की आटा गाढ नाले का ढ़ाल रिज लाइन से कर्णप्रयाग की तरफ है

एवं उक्त नाले का निस्रण प्रयाप्त नहीं है।

वैठक मे उपस्थित सभी प्रतिभागीयों से विचार विर्मश के पश्चात यह निवक्शं निकाला गया की कनख्वाली में रामगंगा नदी एवं मेहर गांव रामडा में रिथत सिल कोट नाले से ग्रीष्म काल को छोडकर बाकी के दिनों में गैरसैण शहर को ग्रेविटी के माध्यम से जल की आपूर्ति की जा सकती है (जैसा की पेयजल निगम के प्रतिनिधि द्वारा बताया गया) ग्रीध्न काल मे पालिटेविनिके कालेज गैरसेंण के पास रामगंगा नदी पर स्टोर रिजरवायर बनाकर लिप्ट के

माध्यम से गैरसेंण शहर को पानी की आपूर्ति की जायेगी।

वन क्षेत्राधिकारी धन विभाग गैरसेंण

> कनिष्ठ अभियन्ता सिवाई उपखण्ड गैरसैंण

शान्ती प्रसाद डिमरी राजरव उपनिरीक्षक गैरसैंण

सिचाई उपखण्ड गैरसेंण

D \SUB DIVISION DOC\letter & doc\letters.docx

महोत्र कमार

अपर सहायक अभियन्ता

पेयजल नि्गम कणंप्रयाग

अधिशासी अभियन्ता

सिंवाई खण्ड थराली

COMPARISON OF SITE NO. 1 & 2

R. 10.	P/	RTICULARS	SITE NO. 1 (i.e. D/S	SITE NO. 2 (i.e.	REMARK
			OF GOVT. POLYTECHNIC COLLEGE GAIRSAIN)	U/S OF GOVT. POLYTECHNIC COLLEGE GAIRSAIN)	
1		alley width at river bed	20.00 M	8.00 M	Cost of construction will b less in site no 2 as compared to site no 1
2		River bank condition	Hard rock is not exposed on any bank of the river	Hard rock is exposed on both banks of the river	
3		River bed condition	Heavy over-burden river bed material consisting of heavy	No over-burden river bed material and bed rock is	i) Site no. 2 – no need of deep foundation
			therefore the bed rock would be available at greater depth	exposed on the surface	ii) Site no. 1– may require deep foundation
	t	Contamination	the municipal solid waste	No any contamination from the municipal solid waste	Quality of water available for drinking purpose at site no 2 is better as compared to site no 1.
-	5	Geological	Not suitable for the construction of reservoir as fissured weak rock is present	Suitable for the construction of reservoir as granite rock is present	Prof. M.P.S. Bisht, Director, Uttarakhand Space Application Center, Dehradun has recommended site no 2 for reservoir construction
	6	Availability of space for water treatment plant and muck disposal	The state of the s	Sufficient space available nearly 150 m d/s of the site on the right bank of river	
	7	Lift	High lift required	Low lift required	Less energy consumption
	8	Rehabilitation	Rehabilitation required	Rehabilitation not required	-
	9	Connectivity	Approach road of approx. 300 m length is required	Approach road of approx. 1400 m length is required	

Considering above points, site no 2 is more suitable as compared to site no 1.

Assistant Engineer Irrigation Sub Division Gairsain (Chamoli)

हुगा प्रसाद कपरूपांगा रा०उ०निरीक्ष्यक्रम्भी सहसील..... वन क्षेत्रीधिकारी रे लोहवा वन क्षेत्र गैरसैण

BEHINDE ANTIN Name of the Work- Construction of Dam Across Ramganga River For Drinking Water Supply of Gairsain Town and adjoining population in District Chamoli

Comparison between identified alignment of approach road

0.		Variables	Alignment No-1	Alignment No-2
1	To	pography	Mountainous	Mountainous
2	-	ength of Road	1.300 km	1.500 km
3	B	ridging requirement o. and Length	Nil	Nil .
4	10	eometric		
	1	a) Gradients	01:20	01:20
	1	(b) Curves, H.P Bends	00 numbers of H.P. Bends	02 numbers of H.P. Bends
5	1		of le By mule path	By mule path
	6	Right of way, brings out. construction account of built areas, monuments a other structures.	on work. There are no built userea, monuments or other important structures along this alignment	Right of way is available for carrying out the construction work. There are no built up area, monuments or other important structures along this alignment
		(a) Terrain & Condition.	The terrain is hilly and the Soil soil is a mix of Earth and Boulders, Soft Rock and Harrock.	The terrain is hilly and the soil is a mix of Earth and Boulders, Soft Rock and Hard Rock.
		(i) Cliffs and gorges	s. (i) None	(i) None
		(ii) Drai	nage (;;) The natural Draina	age (ii) The natural Drainage characteristics of the area is no good and there is no susceptibility to flooding.

0.	Variables	Aligni	nent No	0-1	Alig	gnment	No-2
		point of the and the elec	road is	1585 m the end	the startin	g point o	vation at t
	(iv) Variations extant and types.	50/ 100 (At comprative)			50/100 (At		fter
	Climate Condition:						
	Monthly max. & min.	(a) Tempo max. & mi data of 12 y	n. readir ears)	Monthly ng (Avg.	years)	ding (Av	g, data of 1
		Month	00	7	Month		Min.
			Max.	Min.		Max.	
		January	18	-1	January	18	-1
		Feb.	22	12	Feb.	27	13
8		March	27	13		33	18
		April	33	20		35	20
		May	32	21	-	32	21
		June	31	21	July	31	21
		July	30	23	August	30	23
		August	-	21	September	-	21
		September	29	17	October	29	17
		October	26	12		26	12
		November	21	-1		21	-1
	(b) Rainfall data average annual peak intensities monthly	(b) Rainf		verage	(b) Rainfal peak in		rage annua
	distribution (to the extent available).	Month		Rainfall n mm)	Month		ge Rainfall (in mm)
		January	21		January	21	
		Feb.	7		Feb.	7	
-		March	32		March	32	
-		April	36		April	36	

S. No.	Variables	Align	ment No-1	Alig	gnment No-2	
		May	89	May	89	
		June	194	June	194	
		July	302	July	302	
		August	264	August	264	
		September	189	September	189	
		October	2	October	2	
		November	2	November	2	
		-	23	December	23	
	(c) Snowfall data average annual peak intensities monthly distribution (to the extent available).	(c) Snowfa month of January up on an avera	to 30 cm in depth	(c) Snowfall of December 30 cm in de	l occurs in the monter and January upto pth on an average.	
	velocities.	terrain lo pronounced general pre too strong effect, there diurnal reve flow being the day a night, the considerabl	to mask these is a tendency for ersal of winds, the anabatic during and katabatic at latter being of e force.	terrain local affect and pronounced and when the general prevailing winds not to strong to mask these effect there is a tendency for diurn reversal of winds, the flow being anabatic during the day and katabatic at night the latter		
	(e) Fog Condition.	However, d of Decemb	uring the month er and January, ggy conditions ring night, with	during the and Janua conditions	ly there are no for n the area. However month of December ary, slight fogg prevail during night ky in the day.	
	(f) Exposure to sun.	throughout	the year.	throughout	is exposed to sur	
	condition like cloud	like cloud b	ourst in the area	undada vvc	is no record of ather condition like in the area where cated.	
	Facilities resources.					
-	(a) Landing ground.	(a) None		(a) None		

S.		•		
No.		Variables	Alignment No-1	Alignment No-2
	(b)	Dropping Zone.	(b) None	(b) None
q			(c) Haldi, Adrak, Mirch,	(c) Haldi, Adrak, Mirch, Lehsoon, Dhan, Ghehun, Aloo etc.
		Labour local ailability and need rimport.	(d) Local labour is available	(d) Local labour is available for construction work.
	BS	aterial (Timber	shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 40 km.	construction work shall be made available locally as it shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 40 km.
1	.0	Value of lan agricultural land land, forest land etc,	road in this alignment is as under- d, Van panchayat land, 4.950 hectare Rs5.84.:0.9	Van panchayat land, 5.50 hectare @ Rs. S.84.06/sq. =
	11	Approximate Con Cost.		Rs. 7000.00 lacs
	12	Access point indicati	Access point available for induction of equipment	Access point available for induction of equipment
	13	Period required construction.	for 24 months	24 months
	14	Strategic Consideration.	manpower and efficie	ed Deployment of skilled and manpower and efficient all equipment / machinery shall be of made for completion of the project.

S.	•		
No.	Variables	Alignment No-1	Alignment No-2
15		connectivity to proposed	The word to
16	Recreational potential.	NII	AUI
	Economic Factors:		NII
	(a) Population served	(a) 251 numbers	(a) 251 numbers
17	(b) Agricultures and economic potential of the area.	channel) shall enhance the economical condition of the people residing in this area. Potential of the development of pisciculture in lake and	condition of the people residing in this area. Potential of the
18	Other major development projects being taken up electric projects etc.	None	None
		of the road.	along the alignment of the road.
	(ii) Law and other problem	larea and the local	and order problem in the area
19	(iii) Royalty	(iii) Royalty is paid to the Revenue Department.	(iii) Royalty is paid to the Revenue Department.
	(iv) Availability of contractors for collection and carriage of construction material	(iv) Available	(iv) Available
	(v) Working period available for construction of work.	(v) 09 months in a year	(v) 09 months in a year

	* i		
S. No.	Variables	Alignment No-1	Alignment No-2
20	Total No. of trees to be removed.	955 numbers	Approximately 1100 numbers.
21	Average Density of forest cover.		
22	Total No. of Merits		
23	Total No. of Demerits		

Alignment no. -1 is Recommended for approval being more economical, useful & technically

Assistarit €ngineer Irrigation Sub Division Gairsain (Chamoli)

वन क्षेत्रीधिकारी लोहवा वन क्षेत्र गैरसैंप

दुनी प्रसाद कपस तहसील.. .ठी जनपद चुम्ह

हडसालकर

प्रभागीय वनाधिकारा केदारनाथ वन्य जीव प्रभाग गोपेश्वर।

5 GEOLOGY AND GEOTECHNICAL INVESTIGATIONS

5.1 INTRODUCTION

Gairsain Dam is proposed to be located on Ramganga River in Chamoli district of Uttarakhand. As per information provided by the project authorities, the latitude and longitude of the proposed dam site are 30°03'48.4"N and 79°17'03.2"E. The catchment area uptoGairsain dam site has been estimated as 31.44 sqkm using ArcGIS. As per the project proposal, Gairsain dam is proposed to store 0.35 MCM of water of Ramganga River for domestic water supply of Gairsain town.

5.2 GENERAL ASSESSMENT OF TERRAIN ON BASIS OF DRILL HOLES GEOMORPHOLOGY AND GEOLOGY OF AREA

The Ramganga River flows in a roughly straight course, with minorbends towards N110° in the dam site area. This direction persists for about 70 m distance in the downstream and upstream directions of the proposed dam axis. The river has a fairly tight valley, with consistent slope of about 40 to 45°. On the other hand, the right bank has a steep to very steep slope (65°/70°'). The right bank slope is uneven with a few breaks in the slope. Growth of plants could be seen on the entire right bank slope. On the left bank, the slope profile raises gradually up with a smooth slope. Similar conditions persist for more than 50 meters above the river bed inclined at 65° to 70° toward N20°. Since the valley slopes are nearly controlled by foliation planes, they show a smooth consistent slope surface. On the other hand, the right bank slopes are rugged in nature with uneven surface extending for more than 50m above the river bed. The foliation dip into the hill on the right bank.

The rocks exposed in the area include granitic gneisses, which aregenerally moderately weathered on surface. The rock surface on left bank has a thin debris cover in higher levels at places though continuous rock exposure could be seen on the bank. The rock surface on right bank has thin to thick debris cover at places, with thick vegetation cover occupying a major part The rocks are more weathered on the right bank as compared to left bank. Open joints are seen in many places on the right bank. The gneissesrock seen on the right bank seem to be dislocated with open joints at many places. The granite gneisses are exposed on the right and left banks with no exposure seen within the river bed. The thickness of debris/RBM is of the order of 1.5m to 2.0m. The granitic gneisses

seen on the banks are medium to coarse grained compacted, well foliated, grey coloured with weathering impacts seen on surface The alternating layers of leucocratic light coloured minerals and dark coloured mica minerals define the foliation planes, which are wavy, undulatory and discontinuous in nature. The leucocratic minerals include Quartz, feldspar and other light minerals. The shining black mica could be conspicuously seen on the broken rock surfaces. In addition to foliation, two sets of joints can be seen which are generally widely spaced in nature. The following are the structural discontinuities observed in the area:

Type	Strike	Dip
Foliation(F)	N80°	N25°-35° towardsN170°
Joint (J1)	N210°	N65° -70° towardsN300°
Joint (J2)	N310°	N70° -80° towardsN40°

The foliation is the major geological discontinuity of the area. It is variations due to mineral composition. Its an important geological discontinuity. The slope surfaces on the left bank are controlled by the foliation planes, while the on the right bank they dip into the hill, the foliation planes show appreciable variations at places. The joint J1 shows long strike continuity on the right bank, with joint planes conspicuously running across the slope and nearly parallel to the dam axis. The joints are tight with adulatory rough surfaces. They dip at fairly steep angles towards upstream direction. The joint J2 is a cross joint striking nearly at right angle to J1 with strike direction running nearly parallel to river course. These joints dip at steep angles towards left bank. Though thin debris cover is seen at few places on the left bank, they can be seen commonly at many places with intermittent rock exposures on the right bank. The rock seen on the left bank is slight to moderately weathered, and the rocks of the right bank show moderate grade of weathering withsupporting vegetation cover. The thickness of river bed materialmay range from 1.5m to 2m.

5.3 ENGINEERING GEOLOGICAL ASSESSMENT OF SITE FORPROPOSED DAM

¹⁾ The dam axis is located on a nearly straight section of the river with the axis trending roughly perpendicular to river course.

- 2) The rocks exposed at the dam site are hard, compact, foliated Granitic gneiss. Since the rocks are dominantly composed of leucocratic minerals including quartz and feldspar with minor soft mica in between the rocks are expected to have good bearing capacity. Since the height of the dam is only 21m, these rocks may provide good foundation base.
- 3) The foliation being the major geological discontinuity, dips at shallow to moderate angles toward the right bank. Since they control the slopes on left bank, any foundation excavation on left bank may lead to instability of the hill slope. This problem shall be adequately taken care during abutment striping.
- 4) The joints are generally steeply dipping and are tight in nature on the left bank. However, on the right bank, many joints are open in nature with dislocated rock blocks at places. It is essential to remove the dislocated rock blocks/ weathered rock blocks in order to expose the fresh rocks for laying foundation.
- 5) In order to design the striping limit to expose the fresh rock, it is suggested to excavate an exploratory drift on both the banks. These drifts may be located at middle levels along the dam axis just above the HFL for a depth of about 20m.
- 6) Based on the striping limit obtained from these drifts, a realistic striping excavation plan shall be made.
- 7) In the bore holes drilled at the site, six no. permeability tests were carried out at 3m and 6m depth as indicated. The results of permeability are in order of 1 to 3 lugeon indicating impervious nature of the material.

Chart showing the range of permeability of rock/soil

Permeability (Iugeon)	Nature			
1-3	Impervious			
Up to 10	Pervious			
10-30	Very pervious			
More than 30	Highly Pervious			

8) The results of permeability is in order of 1 to 3 lugeon However, based on the nature of the rock type and joint pattern, it is assessed to have fairly good subsurface seepage after impoundment. As such, the following treatments shall be required for the safety of the dam.

- a) Provision for a suitably designed high pressure consolidation grouting -
 - helps to consolidate and increase the shear strength at the base of dam.
 - helps to fuse the dam with the foundation rocks below.
 - helps to prevent subsurface seepage at the base of the dam.
 - b) Provision for a suitably designed curtain grouting it is a deep level grouting which mainly aimed to control the seepage of water through the foundation rock at shallow levels, it may progress down up to 10m.
- 9) During foundation excavation of the left bank, since the slopes are controlled by the foliations dipping at shallow angles, it may lead to instability of hill slopes These probability during the excavation shall be taken care suitably
- 10) Since the narrow stream course has steep bed gradients in the upstream area, it may be useful to construct 3 to 4 check dams above the reservoir itself across the river course. This will help to prolong the life of the reservoir. The height of the check dams shall be kept at 2m, and spaced at a minimum of 250m between each of them.

5.4 CONCLUSIONS ANDRECOMMENDATIONS

- 1) The dam axis is located on a nearly straight section of the river with the axis trending roughly perpendicular to river course.
- 2) The value of uniaxial compressive strength varies from 250MPa to 359MPa.
- 3) Along the foliation, value of C= 6 T/m² and Φ^0 = 38.5° respectively.
- 4) The foliation being the major geological discontinuity, dips at shallow to moderate angles toward the right bank. Since they control the slopes on left bank, any foundation excavation on left bank may lead to instability of the hill slope. This problem shall be adequately taken care during abutment striping.
 - 5) The joints are generally steeply dipping and are tight in nature on the left bank. However, on the right bank, many joints are open in nature with dislocated rock blocks at places. It is essential to remove the dislocated rock blocks/weathered rock blocks in order to expose the fresh rocks for laying foundation.
 - 6) In order to design the striping limit to expose the fresh rock, it is suggested to excavate an exploratory drift on both the banks. These drifts may be located at middle levels along the dam

axis just above the HFL for a depth of about20m.

7) Based on the striping limit obtained from these drifts, a realistic striping excavation plan shall bemade.

However, based on the nature of the rock type and joint pattern, it is assessed to havefairly good subsurface seepage after impoundment. As such, the following treatments shall be required for the safety of thedam.

- a) Provision for a suitably designed high pressureconsolidationgrouting helps to consolidate and increase the shear strength at the base of dam; helps to fuse the RC dam with the foundation rocks below; helps to prevent subsurface seepage at the base of the dam.
- b) Provision for a suitably designed curtain grouting it is a deep level grouting which mainly aimed to control the seepage of water through the foundation rocks at shallow levels, it may progress down up to 10m.
- 8) During foundation excavation of the left bank, since the slopes are controlled by the foliations dipping at shallow angles, it may lead to instability of hill slopes. These probability during the excavation shall be taken care suitably.
- 9) Since the narrow stream course has steep bed gradients in the upstream area, it may be useful to construct 3 to 4 check dams above the reservoir itself across the river course. This will help to prolong the life of the reservoir. The height of the check dams shall be kept at 2m, and spaced at a minimum of 250m between each of them.

The reports on Engineering Geological Evaluation submitted by Irrigation Division, Chamoli which is prepared by concerned consultant are enclosed herewith in annexure I, II&III.

gover Si

(A.E) (A.E) (Chinsain) परियोजना का नाम:— माननीय मुख्यमंत्री जी की घोषणा संख्या 281 / 2017 के अन्तर्गत चमोली के गैरसैंण शहर एवं एडजवाइनिंग आबादी में पेयजल आपूर्ति हेतु रामगंगा नदी पर निर्माण कार्य के लिए 4.95 हे0 वन भूमि का सिचाई विभाग को हस्तांतरण प्रस्ताव ।

Detail of Muck Dumping Yard

S.No	Locational of Dumping	Area In Sqm	Type of Land	Capacity of Dumping Yard Cum	Latitude"N"	79°16'59.7" 79°16'53.9" 79°17'00.5"
		22 22 45 22 2 22	Van Panchayat Land	1440	30°03'34.41"	
	0.200 to 0.400	30.00x16.00x3.00			30°03'38.5"	
	0.500 to 0.700	40.00x16.00x2.50	Van Panchayat Land	1600		
		60.00x18.00x2.00	Van Panchayat Land	2160	30°03'46.2"	
	1.000 to 1.100			5200		
		Total Cap	pacity of Dumping Yard	5200		

Summary of Debris Disposal

S.No.	Total Debris	Disposal during construction	Re-Used material for Road Construction	Total Disposal	Balance Debris	
1	28381.80	1333.01	27048.79	1333.01	0	

(I.S.D. Gainsain)

अधिशासी अभियन्ता सिंचाई खण्ड थराली

Wildlife Mitigation Plan for Dam Construction on Ram Ganga river.

Likely Impact of the Project on Protected Area (PA)

As the proposed site for the construction of reservoir is situated in Nail Lagga Farkanda and Talgaon Vanpanchayat forest which is an Oak forest. This construction site is situated 40.9 km distance from the boundary of Kedarnath Wildlife Sanctuary so there will not any adverse impact of the project on Protected Area (PA) i.e., core zone of Kedarnath Wildlife Sanctuary but it cannot denied that there will be some adverse impacts on the wildlife of adjoining forests which can be addressed through proper mitigation measures as recommended below.

As per the Guide line dated 16.01.2023, the User Agency shall pay 2% of project cost for wildlife management and 0.50% of project cost for Soil and Water conservation works. As the project cost of this Proposed project is only 119.43 lac, which 2% and 0.5% of project cost come only Rs. 2,38,860 and Rs 59715/- respectively. Hence, Funds of Rs. 238860/shall be deposited by the User Agency for the implementation of Habitat improvement works like eradication of weeds, water hole construction and fodder grass plantation in adjoining forest areas and Rs. 59715/- for soil and water conservation works around the reservoir.

It is also intimated that following mitigation measures are proposed to be adopted by the User Agency for Safeguard of Wildlife Passage during execution of the project:

- Use of explosives in road cutting and other construction work will remain completely restricted during construction work, so that disturbances to wildlife could be prevented.
- Construction work will not permissible after the sun set. It is permissible only in day time i.e, between sun rise to sunset.
- Before starting the work, the User Agency will make clear demarcation of the project area by constructing sufficient number of RCC pillars on its cost so that excess cutting of forest land could be avoided.
- Alteration in sanctioned design of project structure and use of diverted forest land will not be permissible in any condition.
- During reservoir construction, except the sanctioned trees in forest land transfer proposal, no extra tree should be felled or damaged so that minimum damage to wildlife habitat could be maintained.
- The User Agency will remain bounded to make proper treatment of excavated areas, created during construction work, on its cost. For this purpose, Sufficient number of

- Retaining wall and Breast wall will be constructed by the User Agency so that land slide due to earth excavation works could not take place.
- Muck, produced during the construction works, should be properly dumped only at the places which are sanctioned in forest land diversion proposal. Unregulated spreading of muck will be completely restricted and punishable.
- On the accomplishment of construction works, proper treatment of muck dumping sites should be done by the User Agency on its cost.
- Compliance of Wildlife Protection Act 1972 and Indian Forest Act 1927 and instruction of Hon'ble N.G.T., National/ State Pollution Control Board and directions/ guidelines from National Board for Wildlife and Chief Wildlife Warden of Uttarakhand must be ensured by the User Agency.

General Mitigation Measures for Protection of Wildlife

In addition to the aforementioned specific measures for animals and birds, the following mitigation measures shall be adopted by the User Agency during execution of the project for protection of forest and wildlife:

- Before start of work awareness campaign will be taken up by the User Agency in association with Forest Department to create maximum awareness among the construction workers regarding safeguard of forest and wildlife.
- User agency shall comply with all conditions stipulated in forest clearance under Forest (Conservation) Act 1980.
- Land shall not be used for any other purpose other than specified in the proposal.
- The instruction/orders passed by the State Government/Central Government and the directions passed by Hon'ble Court/Supreme/ NGT and directions/ guidelines issued by the CWLW of Uttarakhand from time to time regarding such project shall be complied with.
- User agency will ensure that the project personnel engaged in the project shall comply the provisions of the Indian Forest Act 1927, Wildlife (Protection) Act 1972 & Rules made thereafter.
- Tree felling will be minimized and only those trees which are unavoidable for reservoir construction will be felled under the supervision of Forest Department.
- Construction waste materials will not be thrown inside the forest land.
- No labour camp shall be established inside the forest land.
- Use of fuel wood for cooking purpose will not be allowed. The user agency will manage alternative energy for their labourers.
- There will be no permission to carry ammunition and explosives inside the forest area.

Divisional Forest Officer Kedamath Wildlife Division Gopeshwai ना का नाम :—मा. मुख्यमंत्री जी की घोषणा संख्या 281/2017 के अन्तर्गत जनपद चमोली के गैरसेंण शहर एवं एडज्वाइन्हिंग आबादी में पेयजल आपूर्ति हेतु रामगंगा नदी पर बाँघ निर्माण हेतु 4.95 हैं0 वन भूमि हस्तान्तरण प्रस्ताव।

एन०पी०वी० की धनराशि का आंकलन।

1- इको-क्लास की श्रेणी-

V

2- हरियाली का धनत्व-

0.6

3- एन०पी०वी० की दर -

रू० 14,36,670.00 प्रति है0

4-आवेदित वन भूमि का क्षेत्रफल-

4.95 党0

5-कुल देय एन०पी०वी०-

रूठ 71,11,516.00

(इन्द्र सिंह नेगी) प्रभागीय वनाधिकारी, केद्रारनाथ वन्यजीव प्रभाग, गोपेश्वर। रि-/47 कार्यालय जिलाधिकारी चमोली। छन्दीस-एम०वी०(२०२०-२०२१) गोपेश्वरः दिनांकः 63 फरवरी, २०२०

अभियन्ता, अवर्षः खण्ड, थराली।

दिषय:

विकास खण्ड गैरसैंण में मा० मुख्यमंत्री घोषणा के अन्तर्गेत गैरसैंण में पेयजल आपूर्ति हेतु रामगंगा नदी पर नदी पर बांध निमार्ण कार्य (क्षति०वृ०हेतु सिविल सोयम भूमि) के सम्बन्ध में।

कृपया उपरोक्त विषयक उप जिलाधिकारी थराली ने अपने पत्र रां -54 / एस०टी०-भूमि अधिग्रहण(2020-2021) दिनांक 21 जनवरी 2021 के द्वारा विकास खण्ड गेरसेंण में मा० मुख्यमंत्री घोषणा के अन्तर्गत गेरसेंण में पेयजल आपूर्ति हेतु रामगंगा नदी पर वांघ निमार्ण कार्य हेतु ग्राम केरा के खसरा सं0-1015 रकबा 1.730 है0, खसरा रां 1016 रकवा 4.755 है0 मध्ये 4.704 है0, एवं खसरा सं0-1017 रकबा 4.685 है0 अर्थात कुल 11.119 है0 भूमि पुनः क्षतिपूर्ति वृक्षारोपण हेतु प्रस्तावित कर प्रस्तावित भूमि का नक्शा, खरारा एवं खतौनी इस कार्यालय को प्रेषित किया गया है, जिसे संलग्न कर आवश्यक

कारावाही हेतु प्रेषित किया जा रहा है।

सल्यानक - यथोपरि ।

प्रभारी अधिकाषी,

कृते-जिलाधिकारी, चगोली।

प्रतिलिपि:- 1. जिलाधिकारी महोदया चमोली के अवलोकनार्थ !

प्रभारी अधिकारी, कृते-जिलाधिकारी, चमोली। und.

ःप जिलाधिकारी. थराली।

सवा में,

जिलाधिकारी. वमोली।

राख्या ए / एस०टी०-भूमि अधिग्रहण(2020-2021)दिनांकः थराली, १ । जनवरी 2021

जनपद चमोली के विकास खण्ड गैरसैंण में मा० मुख्यमंत्री जी की घोषणा के अन्तर्गत विषय:--जलाशय निर्माण के गठन के सम्बन्ध में।

महोदया,

कृपया उपरोक्त कृपया अपने कार्यालय पत्र संख्या-1122/छब्वीस-एम०वी०(2018-19), दिनाँक 06 नवम्बर, 2020 का संदर्भ ग्रहण करने का कष्ट करें। जिसके द्वारा अधिशासी अभियन्ता, सिंचाई खण्ड थराली के पत्र संख्या-609/सि०ख०थ०/पी०-03 देराज दिनोंक 04.11.2020 की प्रति संलग्न करते हुए विकास खण्ड गैरसैंण में मा० मुख्यमंत्री घोषणा के अन्तर्गत जलाशय निर्माण हेतु 2.90 है० भूमि उपलब्ध कराते हुए प्रस्तावित भूमि का नक्शा, खसरा एवं खतौनी जॉच आख्या के साथ उपलब्ध कराये जाने के निर्देश दिये गये हैं।

विषयगत प्रकरण में जिलाधिकारी महोदया द्वारा दिये गये मौखिक निर्देश के कम में अधोहस्ताक्षरी द्वारा वन क्षेत्र अधिकारी, मध्य पिंडर रेंज थराली एव तहसीलदार थराली एव राजरव उप निरीक्षक डुंग्री के माध्यम से प्रस्तावित भूमि की जॉच करायी गयी तथा संयुक्त जॉच आख्या प्राप्त की गयी। प्रकरण में वन क्षेत्र अधिकारी, मध्य पिंडर रेंज थराली द्वारा अपने पत्र संख्या-449 / 12 दिनॉक 15 जनवरी, 2021 से अवगत कराया गया है कि जनपद चमाली के विकासखण्ड गैरसैंण के अन्तर्गत् रामगंगा नदी पर जलाशय निर्माण हेतु क्षतिपूरक वृक्षारोपण के लिये प्रस्तावित 11.17 है0 भूगि के सम्बन्ध में तहसीलदार, थराली, राजस्व उप निरीक्षक डुंग्री व स्थानीय ग्राम वासियों के साथ अनुभाग अधिकारी थराली द्वारा उक्त प्रस्तावित भूभि का संयुक्त निरीक्षण किया गया। उनके द्वारा प्रेषित संयुक्त निरीक्षण रिपोर्ट के अनुसार राजस्य उप निरीक्षक डुंग्री द्वारा तीन पैचों में प्रस्तावित भूमि दिखायी गयी। जिसकी आख्या निम्नॉनुसार है:-

पैच संख्या-01- जिसका कुल सकल क्षेत्रफल 5.00 है0 है, जिसमें 40 प्रतिशत भाग चट्टानी है। अस स्वत पैच में 60 प्रतिशत भाग (3.00 है0) पर ही वृक्षारोपण कार्य सम्भव है।

पैच संख्या-02- जिसका कुल सकल क्षेत्रफल 5.00 है0 है, जिसमे 20 प्रतिशत नाम तर गर्म है। अतः उक्त पैच में 80 प्रतिशत भाग (4.00 है0) पर ही वृक्षारोंपण कार्य सम्भव छ।

पैच संख्या-03- जिसका कुल सकल क्षेत्रफल 5.25 है0 है, जिसमें 20 प्रतिशत भाग चटटानी है। अतः उक्त पैच में 80 प्रतिशत भाग (4.20 है0) पर ही वृक्षारोपण कार्य सम्भव है।

उपरोक्तानुसार कुल तीनों पैचों में (3.00+4.00+4.20)=11.20 है0 उपलब्ध भूमि जिसके कुछ भाग में रथानीय ग्रामवारियों द्वारा वर्षाकाल में घास इत्यादि भी काटा वाला उनके द्वारा कहा गया है कि उन्हें इस क्षेत्र में वृक्षारोपण करने में कोई आपत्ति नहीं है।

प्रकरण में वन क्षेत्र अधिकारी, मध्य पिंडर रेंज, थराली द्वारा उक्त प्रस्तावित 11.17 हैंठ भूमि में क्षतिपूरक वृक्षारोपण करने हेतु अपनी संस्तुति आख्या प्रेषित की गयी है।(प्रति रालम्न)

इसी प्रकार प्रकरण में तहसीलदार थराली द्वारा अपने पर संख्या-90/र0का0-क्ष0पू0/2021 दिनोंक 19 जनवरी, 2021 रो अवगत कराया गया ह कि उक्त प्रस्तावित भूमि का वन कार्मिकों के साथ गहनता से निरीक्षण कर प्रस्तावित भूमि को 03 जनवरी, यागों में बांटा गया। इन 03 भागों के मध्य में कहीं-कहीं पर पथरीला भाग भी रिथत भौगोलिक भागों में बांटा गया। इन 03 भागों के मध्य में कहीं-कहीं पर पथरीला भाग भी रिथत है। इन पथरीले हिस्सों को छोड़कर अन्य भाग पर वृक्षारोपण किया जा सकता है। उक्त है। इन पथरीले हिस्सों को छोड़कर अन्य भाग पर वृक्षारोपण किया जा सकता है। उक्त भौगोलिक क्षेत्र के बारे में स्थानीय ग्रामवासियों से वार्ता की गयी तो ग्रामवासियों द्वारा बताया भौगोलिक क्षेत्र के बारे में स्थानीय ग्रामवासियों से वार्ता की गयी तो ग्रामवासियों गया कि वरसात के दिनों में उक्त प्रस्तावित क्षेत्र में घारा इत्यादि काटा जाता है। ग्रामवासियों भया कि वरसात के दिनों में उक्त प्रस्तावित क्षेत्र में वृक्षारोपण होने में कोई आपित्त नहीं है। प्रस्तावित क्षेत्र ग्राम करा के को उक्त प्रस्तावित क्षेत्र में वृक्षारोपण होने में कोई आपित्त नहीं है। प्रस्तावित क्षेत्र ग्राम करा के अन्तर्गत खसरा नम्बर 1015 रकवा 1.730 है0, खसरा नम्बर 1016 रकवा 4.755 है0 मध्ये 4.704 है0 एवं खसरा नम्बर 1017 रकवा 4.685 है0, कुल 11.119 है0 में रिथत है।(प्रति संलग्न)

प्रकरण में प्रस्तावित भूमि का नक्शा, खसरा एवं खतौनी की नकल पूर्व में जॉच रिपोर्ट के साथ संलग्न कर प्रेषित की जा चुकी है।

अतः उपरोक्तानुसार वन क्षेत्र अधिकारी, मध्य पिंडर रेंज थराली / तहसीलदार थराली की संयुक्त जॉच आख्या के अनुसार प्रस्तावित 11.17 है0 भूमि में क्षतिपूरक वृक्षारोपण किये जाने हेतु आख्या संस्तुति सहित महोदया की सेवा में आवश्यक कार्यवाही हेतु सादर प्रेषित की जा रही है।

रालग्नक - यथोपरि।

भवदीय.

(सुधीर कुमार) उप जिलाधिकारी. थराली।

संयुक्त निरीक्षण रामगंगा नदी पर जालाय निर्माण हेतु (क्षतिपूरक वृक्षारोपण)

साननीय मुख्यमंत्री जी की घोषणा संख्या—281/2017 के अन्तर्गत जलाशय निर्माण हतु सिवल प्रस्तावित 3 50 हैं0 वन भूमि भी सिम्मिलित हैं। जिस सम्बन्ध में उप जिलाधिकारी बराली द्वारा एक पूर्व में प्रस्तावित वन भूमि 3.50 हैं0 के सापेक्ष ग्राम केरा राजस्व उप निरीक्षक क्षेत्र द्वारा एक धराली में क्षतिपूरक वृक्षारोपण हेतु खसरा संख्या 1016 रकवा 4.755 हैं0 एवं खसरा संख्या 1017 रकवा 4.685 हैं0 कुल रकवा 9.440 हैं0 भूमि क्षतिपूर्ति वृक्षारोपण हेतु चिन्हित की गयी थी जिसका सायुक्त निरीक्षण दिनांक 05/01/2020 को किया गया था। किन्तु जलाशय का परिकल्प परीक्षण केन्द्रीय जल आयोग द्वारा कराया गया. जिसमें जलाशय की ऊँचाई वृद्धि हेनु निर्वेशित किया गया। फलस्वरूप जलाशय के जल भराव एवं स्ट्रक्वर सिहत अन्य कार्य के लिए 4.95 ह0 वन भूमि की आवश्यकता होगी,जिसमें पूर्व में प्रस्तावित 3.50 हैं0 वन भूमि भी सिम्मिलित हैं। जिस सम्बन्ध में उप-जिलाधिकारी धराली द्वारा पूर्व में चिन्हित 9.44 हैं0 के अतिरिक्त 1.00 हेतु उपरोक्त उल्लेखित राजस्व ग्राम में क्षतिपूरक वृक्षारोपण हेतु खसरा संख्या 1015 रकवा 1.730 हैं0 भूमि क्षतिपूर्त वृक्षारोपण हेतु खसरा संख्या 1015 रकवा 1.730 हैं0 भूमि क्षतिपूर्ति वृक्षारोपण हेतु प्रस्तावित किया जा रहा है, जिसका निरीक्षण दिनांक 25.09.2020 को निम्न अधिकारियों/ कर्मचारियों द्वारा किया गया है।

तह नित्तवार⁴ खरात्मी

राकेश गुसाई वन-बीट अधिकारी थराली

जसपाल सिंह अभूपर सहायन अभिग्रप्ता। सिंधाई (अक्षान्ध)थराली शिवाई कण्ड धराली राजेन्द्र प्रसाद पेटवाल जिल्लेदार.

सहायक अभियम् प्रश्नम् किन्ति ईन्त्रम् स्टब्स्

(वया यहिता है कि किया कि एक)

माश - किरा		वा	वा.ख. ति. भ्रे० - द्वा			्न प्राराला नि		जिला-चर्गाः
1	2		3	4	5	6	7	8.
35	च्यहान		,	1016	4,755	+		
35	च्डाम			1017	4.685		-	
25	विषर्		_	1015	1.730	-		
								,
					0	(2)		

लार। ने 1016 में 1016 में 1016 में 1017 की की कि है।

जसरा से 1016 में 0.051 हिल्क्षित कि बाकि मान स्कीता है।

जसरा से 1016 में 0.051 हिल्क्षित कि बाकि मान स्कीता है।

RAJ KUMAR SIDOWAN REVENUE SUBTRISPECTOR

DISTRICT- CHAMOLI

सहसीलदरि धराली