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31/23

IN THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO. 330 OF 2022

IN THE MATTER OF:

Ganesh Chand Sharma. .....Applicant

Versus

State of Uttarakhand & Ors. ... Respondents

RESPONSE BY WAY OF ADDITIONAL AFFIDAVIT ON BEHALF OF RESPONDENTS (STATE OF UTTARAKHAND) IN COMPLIANCE OF DIRECTIONS PASSED BY THE HON'BLE NATIONAL GREEN TRIBUNAL VIDE ITS ORDER DATED 15.02.2023.

P A P E R - B O O K

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Filed by:

Rahul.Verma

[RAHUL VERMA]
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IN THE HON'BLE NATIONAL GREEN TRIBUNAL,

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I, Onkar Pandey S/o Shri Suresh Chandra Pandey aged about 32 years, presently posted as Executive Engineer Provincial Division PWD Ranikhet, Govt. of Uttarakhand, Dehradun, Uttarakhand , do hereby solemnly affirm on oath and state as under:

1. That in my abovementioned official capacity, I am acquainted with the facts and circumstances of the present matter, and I am fully competent to file present Response by way of Additional Affidavit on behalf of State of Uttarakhand.

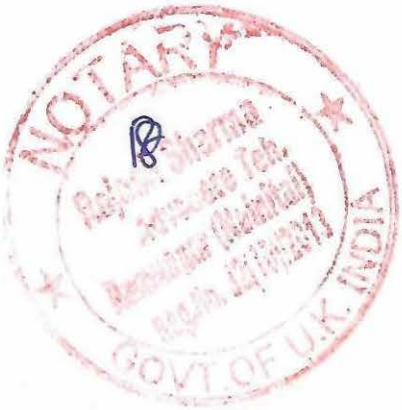
2. That the abovementioned matter had been filed by the applicant seeking inter alia the relief of issuance of directions to the respondents not to construct Taradi-Dhabra Shashikhal Motar Road above the Naula of Village Malla Dhadhariya, District Almora, Uttarakhand and to adopt alternate route to protect it from damage.

3. That the applicant also claimed that Naula in question is the only natural water resource more than 100 years old which serves the

inhabitants of village Malla Dhadhariya and Soli besides Students and Teachers of the School situated nearby. The above said Naula is in danger of being completely destroyed by construction of the above said road.

4. That the matter was listed before this Hon'ble Tribunal on 11.05.2022, this Hon'ble Tribunal vide its order dated 11.5.2022 was pleased to pass the directions to Respondent-State of Uttarakhand, the operative portion of the same is as follows:-

"……..



4. In view of the grievances raised in the letter petition, the factual position also needs to be verified and remedial action is required to be taken on the basis thereof. We accordingly constitute Joint Committee of State PCB, Executive Engineer, PWD Department and District Magistrate, Almora and direct the same to verify the factual position, look into the grievances of the applicant and in particular consider the alternative suggested by the applicant in para 5.10 of the application for saving the Naula from destruction in consultation with some local expert in the field of Himalayan Geo-hydrology, if so required. State PCB will be the nodal agency for co-ordination and compliance. Report may be furnished on or before 26.05.2022 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

5. The applicant is directed to take requisite steps for service of notices on the respondents and file his affidavit regarding the same by email at judicial-ngt@gov.in within seven days.

List the matter for further consideration on 27.05.2022.

A copy of this order, along with a copy of the complaint, be forwarded to the State PCB, Executive Engineer, PWD Department and District Magistrate, Almora by e-mail for compliance."

5. That in compliance of the abovesaid order dated 11.05.2022 a Joint Committee consisting of the concerned officials had already conducted a joint inspection and submitted its report dated 21.5.2022 as already informed to this Hon'ble Tribunal at the time of hearing, on 10.8.2022, while stating that the total length of proposed motor road is 21 Km. out of which 2.225 Km. motor road is under construction.

6. That in compliance of the order dated 10.08.2022 an additional affidavit was filed and thereafter, the matter was listed on 19.10.2022, after hearing, this Hon'ble Tribunal was pleased to pass the following order:-

".....

.....

5. Vide order dated 10.08.2022, respondents no 1 to 4 were allowed to file additional affidavit and personal appearance of DFO and District Magistrate, Almora was ordered.

6. In compliance thereof, Additional Affidavit on behalf of State of Uttarakhand has been filed through email dated 27.08.2022. Ms. Vandana Singh, District Magistrate and Mr. Mahatim Yadav, DFO, Almora are present before this Tribunal through VC and we have interacted with them.

7. In the additional Affidavit filed on behalf of State of Uttarakhand, it has been mentioned that decision would be taken after public hearing.

8. In the facts and circumstances of the case, the question as to whether the project in question requires Environmental Clearance (EC) in view of EIA Notification, 2006 also needs to be considered by the concerned authorities.

9. Learned Additional Advocate General for respondents no. 1 to 4 seeks time to file additional affidavit.

10. Additional Affidavit on behalf of the respondents no. 1 to 4 may be filed within two months at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF.

11. List for further consideration on 15.02.2023."

7. That in compliance of the directions passed by this Hon'ble Tribunal vide its abovementioned order dated 19.10.2023, an Additional Affidavit on behalf of State of Uttarakhand filed, thereafter, the matter was listed on 15.02.2023 before this Hon'ble Tribunal, after hearing at length, this Hon'ble Tribunal was pleased to pass its order while passing the following directions:-

"1. In compliance of order dated 19.01.2022, additional affidavit has been filed by Executive Engineer, Provincial Division (PWD), Ranikhet, Government of Uttarakhand vide email dated 13.02.2023.

2. In the affidavit it has been mentioned that there is no need of environment clearance for the construction work of road in question i.e. Taradi Shashikhal Motorable Road of Salt Tehsil of District Almora, Uttarakhand as the same is not covered under the General conditions of EIA Notification 2006 dated 14.09.2006 (as amended on 01.12.2009) issued by Ministry of environment, Forest and Climate Changes, Government of India due to being outside the purview of criteria.

3. In the affidavit it has also been mentioned that public hearing was conducted wherein the villagers had given their consent vide consent letter dated 27.01.2023 in favour of construction of road in question in the presence of Assistant Engineer and Junior Engineer of the concerned Division, Public Works Department and Tehsildar, Salt Khumad, District Almora, Uttarakhand and the proposal of amended alignment is being prepared.

4. In the facts and circumstances of the case, we consider it appropriate to direct that in preparing the proposal for amended alignment some GeoHydrologist may also be consulted for assessment of impact of such proposed amended alignment on the Naula and the proposed amended alignment may be executed accordingly.

5. Additional affidavit giving details of the action taken in this regard may be filed by the Executive Engineer, Provincial

Division (PWD), Ranikhet, Government of Uttarakhand within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF.

....."

A true copy of abovementioned order dated 15.02.2023 passed by this Hon'ble Tribunal is annexed hereto and marked as ANNEXURE R-1.

8. That in compliance of the abovementioned directions --- *4. In the facts and circumstances of the case, we consider it appropriate to direct that in preparing the proposal for amended alignment some GeoHydrologist may also be consulted for assessment of impact of such proposed amended alignment on the Naula and the proposed amended alignment may be executed accordingly."*

9. In respect of abovementioned directions passed by this Hon'ble Tribunal, it is respectfully submitted that the opinion of Dr S.K. Bartarya, Retired Senior Scientist (Hydrogeologist), Wadia Institute of Himalayan Geology, 30/10 Mohit Nagar, GMS Road Dehradun, Uttarakhand was sought by the answering respondents, and Dr. Bartarya, investigated site in question, and after that submitted his investigation report on 24.03.2023, Dr. Bartarya reached on the following conclusion and also suggests the following recommendations:

"Inference

Based on the field observations, geohydrology of the area around Naula, position of the Naula (spring) with respect to modified proposed road alignment, the proposed road is unlikely to adversely affects the hydrogeology of the Naula in reference of Soli- Dadariya village subject to the condition that a culvert / bridge, without altering the natural subsurface flow

and flow of stream water, should be constructed over stream to avoid any major digging inside the hill slope. This will change the aspect of the slope and disposition of bedding and fracture with respect to slope. Thus unlikely to adversely affect the groundwater flow. Further few suggestions are given in following section as recommendations which needs to be followed for the conservation of water resources particularly by the community and stakeholders.

Recommendations

1. *A culvert or bridge should be constructed to avoid any digging in the downslope of the present Naula and preserve the natural flow of spring and stream water.*

2. *Cutting the road by the manual labour than blast or uncontrolled mechanized method below the spring zone (approx 50m) in order to preserve the sub-surface flow of water to the spring.*

3. *Capture the seeps and spring water if encountered while digging/cutting the road and guiding them with proper systems including underneath road drainage systems and finally converting them into productive water sources.*

4. *Though not in the purview of PWD work, recharge of spring may be further ensured through soil and water conservation measures such as Contour or staggered trenches, plantation and couple of check dam/walls along stream in the upslope of the Naula and stream by the local community and other stakeholders."*

A copy of abovementioned Technical Report on the

A copy of abovementioned Technical Report on the Geohydrological Investigation of Naula (spring) and surrounding area on Taradi ---Dabhra- Shashikhal Motor Marg in Tehsil Salt, District Almora, Uttarakhand dated 24.03.2023 is annexed hereto for kind perusal and reference of this Hon'ble Tribunal and marked as ANNEXURE R-2.

10. That the present Response by way of Additional Affidavit in compliance of directions passed by this Hon'ble Tribunal is being filed on behalf of State of Uttarakhand for kind perusal of this Hon'ble Tribunal.

11. In view of the facts and circumstances as explained hereinabove sincere efforts are taken by the State of Uttarakhand in compliance of the directions passed by this Hon'ble Tribunal, the same may kindly be accepted by this Hon'ble Tribunal and the deponent hereby undertakes to comply with every direction passed by this Hon'ble Tribunal, and the present Original Application be kindly disposed off as all the directions issued by this Hon'ble Tribunal are now complied with.

DEPONENT

VERIFICATION

I, the deponent above named do hereby verify and say that the contents of my above Response by way of Additional Affidavit are true and correct to my knowledge based on record, no part of it is false and nothing material has been concealed there from. The legal submissions are further true as per legal advice received and believed to be true and correct.

Verified by me at Ramnagar, Uttarakhand on this 3rd day of ~~March~~ April, 2023.

DEPONENT

Filed through:

[RAHUL VERMA]
Additional Advocate General for State of Uttarakhand
/Respondents
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Mayur Vihar Phase-I,
Delhi-110091
Mobile No. 9717706032
Email- advrahulverma9999@gmail.com

Certified that Smt. राहुल वर्मा
the Deponent identified by ..II..
sworn & certified the contents of
this affidavit at रामनगर
on Date 3/4/2023 at 12:40 P.M
Rajesh Sharma 3/4/2023
Rajesh Sharma
Notary Advocate
Teh Ramnagar Nainital (U'K)
Reg No 32(10) 2013

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ANNEXURE-1

Item No.02 (Court No. 2)

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI.

(Through Physical Hearing with Hybrid VC Option)

Original Application No.330/2022

Ganesh Chand Sharma ...Applicant

Versus

State of Uttarakhand & Ors. ...Respondents

Date of hearing: 15.02.2023

CORAM: HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

Applicant: Applicant in person.

Respondents: Mr. Rahul Verma, Additional Advocate General, for Respondents no. 1 to 4.
Mr. Omkar Pandey, Executive Engineer, PWD.
None for respondent no. 5.

Application under Section 18 (1) read with Section 14 and 15 of the National Green Tribunal Act 2010.

ORDER

1. In compliance of order dated 19.01.2022, additional affidavit has been filed by Executive Engineer, Provincial Division (PWD), Ranikhet, Government of Uttarakhand vide email dated 13.02.2023.

2. In the affidavit it has been mentioned that there is no need of environment clearance for the construction work of road in question i.e. Taradi Shashikhal Motorable Road of Salt Tehsil of District Almora, Uttarakhand as the same is not covered under the General conditions of EIA

Notification 2006 dated 14.09.2006 (as amended on 01.12.2009) issued by Ministry of environment, Forest and Climate Changes, Government of India due to being outside the purview of criteria.

3. In the affidavit it has also been mentioned that public hearing was conducted wherein the villagers had given their consent vide consent letter dated 27.01.2023 in favour of construction of road in question in the presence of Assistant Engineer and Junior Engineer of the concerned Division, Public Works Department and Tehsildar, Salt Khumad, District Almora, Uttarakhand and the proposal of amended alignment is being prepared.

4. In the facts and circumstances of the case, we consider it appropriate to direct that in preparing the proposal for amended alignment some Geo-Hydrologist may also be consulted for assessment of impact of such proposed amended alignment on the Naula and the proposed amended alignment may be executed accordingly.

NOTARY Rajesh Sharma Advocate Tah. Ramnagar (Nainital) Regd. No. 03/2013 GOVT. OF U.K. INDIA

5. Additional affidavit giving details of the action taken in this regard may be filed by the Executive Engineer, Provincial Division (PWD), Ranikhet, Government of Uttarakhand within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF.

6. List for further consideration on 14.04.2023.

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

February, 15 2023
AG

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ANNEXURE-2

Technical Report
on the

Geohydrological Investigation of Naula (spring) and surrounding area on Taradi -- Dabhra – Shashikhal Motor Marg in Sult Tehsil of Almora District

Submitted to
Executive Engineer
Prantiya Khand, PWD
Ranikhet

By

Dr S.K. Bartarya

Retired Senior Scientist (Hydrogeologist)
Wadia Institute of Himalayan Geology
30/10 Mohit Nagar , GMS Road Dehradun

March 2023

Geohydrological Investigation of Naula (spring) and surrounding area on Taradi -- Dabhra – Shashikhal Motor Marg in Sult Tehsil of Almora District

Introduction

Water, particularly, drinking water is vital for all forms of life. Natural springs in the hills have been used for domestic and irrigation purpose and for running the water mills since the time immemorial. They are the primary and cheapest source of pure drinking water in the rural hill areas. The villagers are required to walk long distance to fetch water for their domestic needs. Therefore their conservation and protection is of utmost importance. The infrastructure development work particularly road construction or widening of roads often interferes with existing water resources in the hill region. .

The Public Works Depatment (PWD) of Uttarakhand has planned to construct motorable road between Taradi -- Dabhra – Shashikhal in Sult Tehsil of Almora district. During the planning and construction of above road Mr Ganesh Chand Sharma, resident of the area raised a concern regarding likely impact of proposed road on a Naula (spring) before National Green Tribunal (NGT), Principal Bench, New De;lhi. In turn Honorable National Green Tribunal, New Delhi asked Prantiya Khand PWD, Ranikhet to assess the impact of the amended road alignment on the aforesaid Naula by a Geohydrologist. The Executive Engineer, Prantiya Khand PWD, Ranikhet in his letter No. No 1183/19 MG. dated 20.03.2023 requested the undersigned to undertake Geohydrological Survey of the area around Naula (spring) on proposed Tarari Dabhra Shashikhal road in Sult area of Almora District. The undersigned carried out the necessary geohydrological surveys on 23rd March 2023 in the area to assess the likely impact of the amended road alignment of Taradi -- Dabhra – Shashikhal road. The present report describes the results of geohydrological investigations.

NOTARY Rajesh Sharma Advocate Teh. Lalkuan (Nainital) Reg.No. 22/10/2011 GOVT. OF U.K. INDIA

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Geology of the area

The area lies in the soth central part of the Kumaun Himalaya. Geologically the area falls in Lesser Himalayan Zone. The rocks of Nagthat - Berinag succeeding the Chandpur formation Valdiya (1980) are present in the area. In general the rocks are characterized by multiple deformations resulting in superimposed folding and repeated faulting and thrusting. The Nagthat Berinag formation is made up predominantly of quartzarenite interbedded with greenish slates (Nagthat) and white green sericitic quartzarenite pene - contemporously deposited with tuffite or basaltic rocks.

Fracture and Joints are developed very pounced in the geological formations present in the area. The predominant ones are striking NW-SE, N-S, E-W, and ENE-WSW directions and are related to movements along the NW-SE to ENE-WSW striking MBF (Main Boundary Fault) and MCT present in south and north direction respectively of the present area of study and other fault systems. Most of the fractures/ joints are developed either parallel or perpendicular to the regional strike of the major thrust plane. In its entirety the joint pattern is similar in all the formations where as the difference being only in respect of their spacing. The dominant structurally weak zones are identified on satellite data as major lineaments in this area. At places streams also flow along these lineaments / joints.

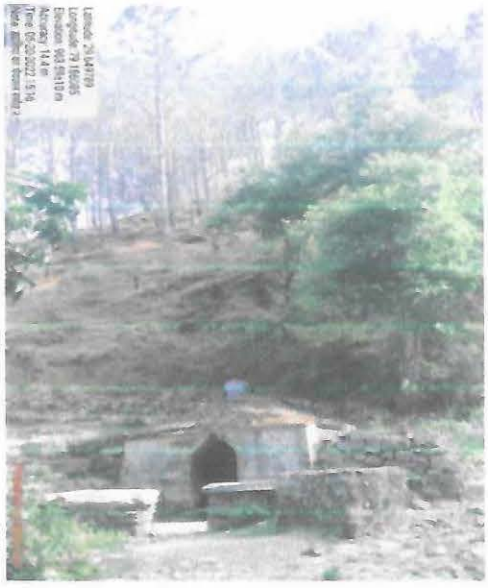


Fig 1. Picture Naula / spring zone with respect to slope and surrounding geology

Field Observations

The hill-slopes around spring (Naula) are anti dip and oblique to the dip slope of the country rock beds. General dip amount of rock strata varies from moderate to steep (30° to 60°) towards NNE on one flank and towards SSW direction on the other flank of the stream. The spring is located in a 2nd order stream. There are 3 seepage zones two of them are located just above the valley floor on the embankment sloping in NNE direction and third one is along the valley floor. Two seepage zones are converted to *Naula* (a small well usally 4-5 ft deep in which water seep in the well) and water of third one located along valley floor has been diverted to a small storage tank with an outlet in the form of *dhara.* The bed rock material is consist of siliceous quatzite overlain by weathered material. Several escarpment and vertical facets are present along hill slopes. The upper slopes of the 2 Naulas are covered with thick regolith formed by the material derived from old rock fall, landslide deposit and weathered rock mass and soil. The thickness of slope cover mass varies from 0.5 to 2m only and consists of very large angular rock boulders set in relatively smaller pebbles and boulders soil matrix derived from the weathering of the country rocks. A check dam constructed along the stream is facilitating the recharge to the spring present along stream.

The modified proposed alignment was shown by the engineers of the Ranikhet Division of the PWD department. The proposed alignment is passing below the Naula/ spring through the stream. The topographic slopes or aspect are variably sloping ~ 50-60° towards NNE in the lower part and ~30° in the upper part and is gradually becomes gentler and aspect changes to eastward as we moves away the spring zone. Thus avoiding the in hill cutting or digging the hill slope immediately below the spring may not affect the hydrogeology of the spring zone. This may achieved by constructing a culvert or bridge across the stream.

NOTARY Rakesh Sharma Advocate Teh. Ranikhet (Distt. Almora) Regd. No. 31/1995 GOVT. OF U.K. INDIA

Fig. 2 Picture showing slope aspects and discussion with engineers of PWD at the Naula site.

Geohydrology of the area

Generally all rocks are permeable to some extent and they retain and transmit water through their primary or secondary pore spaces. In areas other than limestone there is a distinction between surface water and groundwater. Surface water is drained and directed according to local topography and surface water is loosely connected to groundwater through infiltration. Aquifer boundaries, or aquifer flows, are quite independent of surface drainage basin boundaries. The geohydrology of the area is controlled by lithology, geomorphological characteristics, hydrological features etc. The rocks of the catchment area of springs consists of quartzite and slates, and hence, hydrogeology of the catchment is controlled by secondary porosity and permeability and weathered rock mass.

Diffuse flow occurs through fractures, joints, and bedding planes. Storage can even take place in the upper weathered zone where a perched water body develops such as the case of Naula in reference of Soli village under present study. The area is characterized by highly fractured and jointed rocks covered by weathered and unconsolidated old landslide deposits along the slopes and unconsolidated boulder, pebbles and gravel deposits along stream. The rocks are characterized by low porosity and permeability provided by fractures and joints.

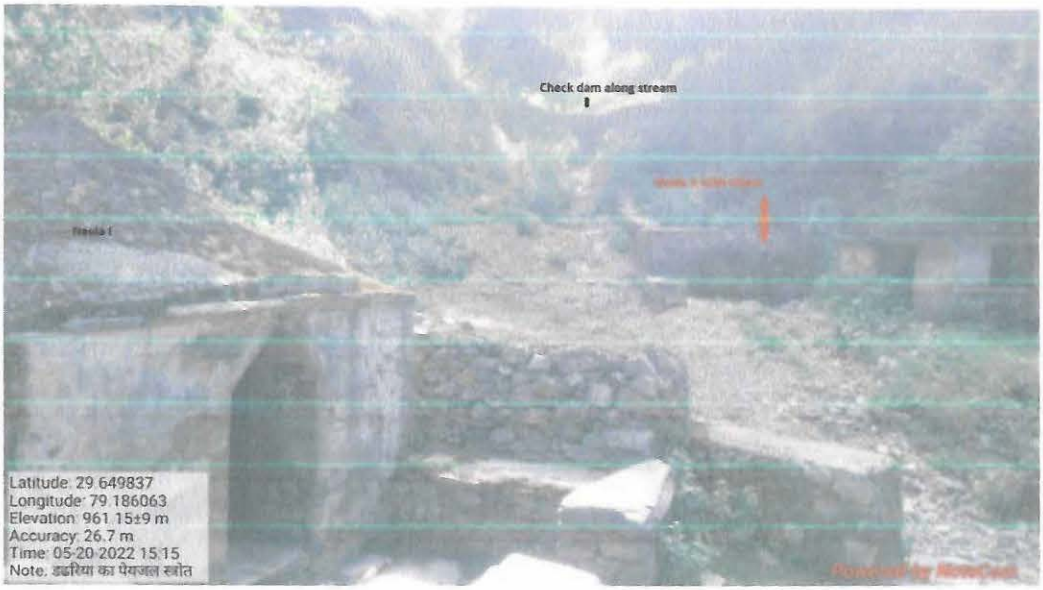


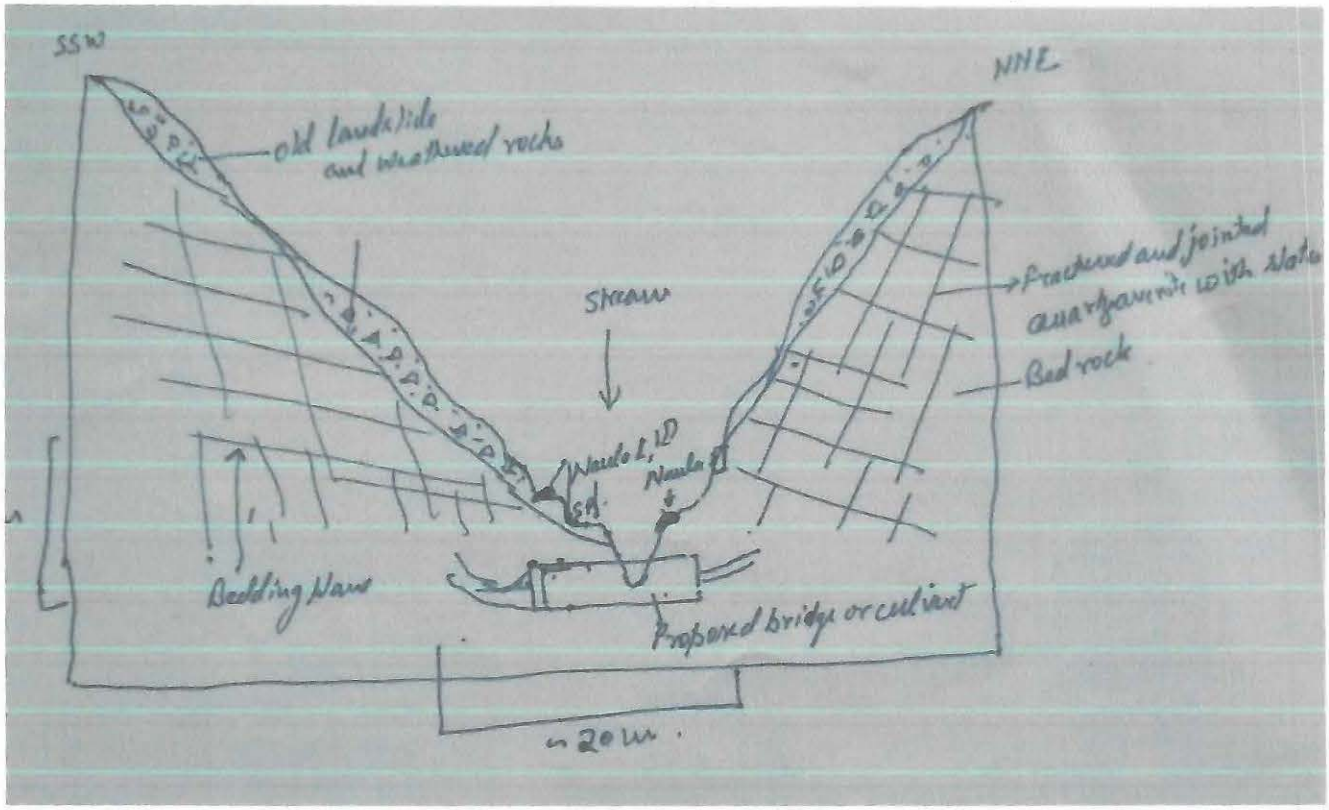
Fig 3. Photo showing Naula of Soli- Dadariya village with Naula I and Naula II (Dhara) along the 2nd order stream.

The Naula in reference is a depression or colluvium related spring present in old landslide deposits where local groundwater table reaches the surface in topographical low point indicating an unconfined or perched aquifer. There are three Naulas or seepage points, two of them present on the lower valley wall just above the valley floor on the embankment side making it a seepage zone and one along the valley floor. The groundwater in the area is present under unconfined and perched conditions. The fracture and joints serves as conduits for the infiltration of rain water. The bedding planes are controlling the sub-surface flow and at places where these bedding and fracture planes intersecting the topographic slope spring/seepage is formed.

The water flowing down the upper slopes infiltrates through weathered mass and fracture is recharging the aquifer besides channel bed infiltration to one spring also contributes to recharge the aquifer. The discharge of the 3 outlet spring are ;

1. Naula 1- 1.2LPM
2. Naula 2- 2 LPM
3. Naula (Dhara) - 4.2 LPM

NOTARY Rajesh Sharma Advocate Tehri Garhwal (Uttarakhand) GOVT. OF U.K. INDIA



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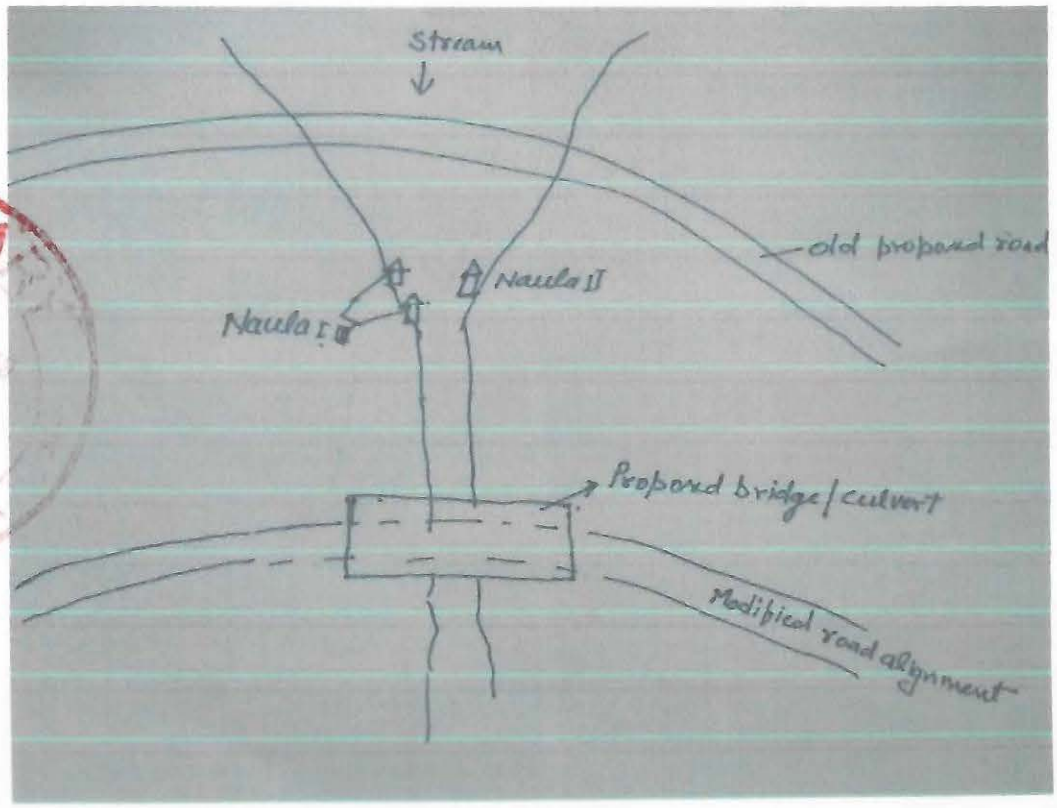

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Fig 4. Hand sketch showing cross section (a) and plan view (b) across stream showing seepage (Naula) or spring zone and position of proposed culvert or bridge (not to scale).

Inference

Based on the field observations, geohydrology of the area around Naula, position of the Naula (spring) with respect to modified proposed road alignment, the proposed road is unlikely to adversely affects the hydrogeology of the Naula in reference of Soli- Dadariya village subject to the condition that a culvert / bridge, without altering the natural subsurface flow and flow of stream water, should be constructed over stream to avoid any major digging inside the hill slope. This will change the aspect of the slope and disposition of bedding and fracture with respect to slope. Thus unlikely to adversely affect the groundwater flow. Further few suggestions are given in following section as recommendations which needs to be followed for the conservation of water resources particularly by the community and stakeholders.

Recommendations

1. A culvert or bridge should be constructed to avoid any digging in the downslope of the present Naula and preserve the natural flow of spring and stream water.
2. Cutting the road by the manual labour than blast or uncontrolled mechanized method below the spring zone (approx 50m) in order to preserve the sub-surface flow of water to the spring.
3. Capture the seeps and spring water if encountered while digging/cutting the road and guiding them with proper systems including underneath road drainage systems and finally converting them into productive water sources.
4. Though not in the purview of PWD work, recharge of spring may be further ensured through soil and water conservation measures such as Contour or staggered trenches, plantation and couple of check dam/walls along stream in the upslope of the Naula and stream by the local community and other stakeholders.

NOTARY GOVT. OF U.K. INDIA

24.3.23

Dr S.K. Bartarya

Retired Senior Scientist (Hydrogeologist)
Wadia Institute of Himalayan Geology
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