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Groundwater Surveys and Development Agency, GoM.
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No. SG/GSDA/Pune/Tech/LGW/ 112 / 2026

Date- 06 FEB 2026

To,
Mr. Elite Group through Swpnil Shivaji Navale and others
Survey No. 32/9+32/10,
Narhe. Tal. Haveli Dist Pune

Sub: Regarding Hydrogeological Survey at survey No. 32/9+32/10, of Village Narhe, Tal. Haveli, Dist. Pune.

Ref: Your application dated 30.12.2025

With reference to the above subject hydro-geological survey was carried out in the presence of concern personnels at the survey No. 32/9+32/10, of Village Narhe Tal. Haveli, Dist. Pune. At the time of Hydrogeological survey the concern personnel Shri. Aakash present.

The details of the proposed site are as below.

Name of Village	Narhe, Tal. Haveli, Dist. Pune
Co-ordinates	Lat -18° 26' 57"N, Long - 73° 49' 43" E
Elevation (msl)	612.20 m
Toposheet & Quadrant No	47F/15 and 1A
Watershed No.	BM-55
Morphozone	A ; Ab
Category	Safe (As per Groundwater Assessment 2022-23)
Rock Type	Basalt
Aquifer (Water bearing Zone)	Shallow Aquifer (Jointed and Fractured Basalt)

Location:

Nahre village is located in Haveli tehsil of Pune district in Maharashtra, India. It is situated 12km away from district headquarter Pune. Narhe is a prominent locality situated in the northern fringes of Pune, enclosed by Ambegaon Budruk, Vadgaon

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Budruk, Dhayari and Nanded. The locality is conveniently placed adjacent to Mumbai-Pune Bypass Road.

Geomorphology:

The village area has undulating topography with gentle slope South to North-West. The drainage of Narhe, Tal. Haveli, Dist. Pune village shows dendritic drainage pattern.

Geology:

The area of the village Narhe, Tal. Haveli, Dist. Pune consists of solidified layers of basalt and thickness of each layer varies from 10.00 to 15.00 meters and formed during upper Cretaceous to lower Eocene period of Geological time scale. The basalts are dark grey to black in colour, fine to medium grained, medium jointed and fractured in nature. For the proposed area the geological as well as lithological data is considered as per field observations and reported data.

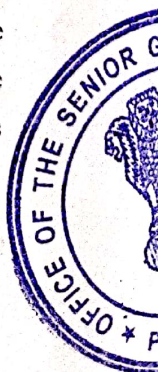
Lithology	Greyish to brownish coarse grained soil	0.00 – 1.50 m
	Highly to moderately weathered Basalt.	1.50 – 5.00 m
	Greyish black coloured, fine to medium grained, jointed and fractured Basalt.	5.00 – 10.00 m
	Greyish black coloured partly jointed and fractured Massive Basalt	10.00 – 12.00 m
	Greyish black coloured compact Massive Basalt	Below 12.00 m.

Rainfall: - Narhe, Tal. Haveli, Dist. Pune village receives rain from south-west Monsoon and retreating of monsoon. On an average moderate rainfall. The average mean annual rainfall in the district is 708.80mm. The distribution of rainfall is very uneven. About 85 percentage of the annual rainfall is received during the south-west monsoon season.

Hydrogeological Conditions:

At the proposed area the Soil thickness is upto 1.5 to 2.0 m, the weathered basalt thickness ranges 1.50-5.00m, jointed and fractured basalt ranges 5.00 – 10.00 m., Greyish black coloured partly jointed and fractured massive basalt ranges 10.00 – 12.00 m and below 12.00 m the Greyish black coloured compact massive basalt. The entire area of the studied Survey No. 32/9+32/10 is underlain by the basaltic lava flows of upper Cretaceous to lower Eocene age. Geologically the area is covered by jointed and fractured basalt.

Ground water in Deccan trap basalt occurs mostly in the upper weathered and fractured parts down to 1.00 - 12.00 m bgl under unconfined conditions. The



water bearing strata at deeper depth exists under semi confined to confined conditions at a depth of about 30-45 m and 50-55 m. From the groundwater availability point of view, the area is moderate yielding groundwater potential zone.

The availability of groundwater as a source depends largely upon surface and subsurface geology, geomorphology, natural drainage pattern, depth of weathering and fractures present. Actual annual rainfalls, groundwater extraction from other sources in the surrounding area, urbanization, topography modification are also the factors which control and affect the availability of groundwater.

Presently, at the said Survey No. 32/9+32/10 two groundwater source (borewells) are present which is used for domestic and drinking purpose. The details of existing groundwater sources are given as below.

Sr. No	Source	Location Gat No.	Details of GW Source				Lifting Device	Water availability
			Dimensions /Diameter in m	Depth in m	Water Level in m.			
					Winter	Summer		
1	Bore Well 1	Survey No. 32/9+32/10	150 mm (R)	60 m (R)	8.00 m (R)	30m (R)	Electric submersible pump 3 HP	30 Cu.m/Day
2	Bore Well-2	Survey No. 32/9+32/10	150 mm (R)	60 m (R)	6.50 m (R)	30m (R)	Electric submersible pump 3 HP	30 Cu.m/day

Observations:

On the basis of Hydrogeological survey done by this office, two groundwater sources (Bore well) are present in Survey No. 32/9+32/10 adjacent to said property for drinking and domestic purpose. From the groundwater availability point of view, the surveyed area is low to moderate yielding groundwater potential zone. By considering the existing sources 60 Cu.m/Day water may be available.

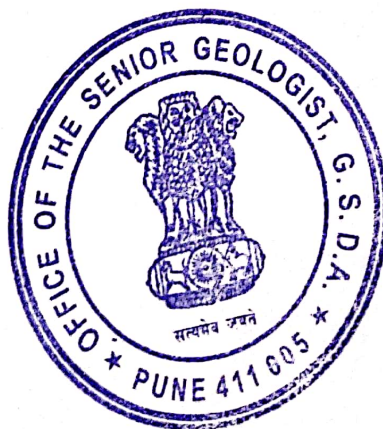
Nevertheless, deficit in normal rainfall, increase in population density, excess groundwater extraction from surrounding areas and lack of groundwater recharge may create stress on the availability of groundwater. Following measures are recommended and are mandatory to the applicant

Recommendations:

1. At the time of any development process the applicant /company /every holder of a said land shall take all possible precautions to avoid the disturbance of the natural drainage system and aquifer system available.

2. The available groundwater should be strictly used for drinking and domestic purpose only. For future development of infrastructure, the requirement of water should be fulfilled by tanker water/untreated raw water so that extraction/utilization of groundwater is controlled.
3. If in future the additional water required for the drinking and domestic purpose, the water requirement should be fulfilled by the water supply connections of local authority and is mandatory to the applicant.
4. For the Narhe availability of groundwater,
5. Roof Top Rainwater Harvesting measures to the existing/new groundwater sources are mandatory.
6. The rainwater harvesting structures should be implemented under the technical guidance of this office (G.S.D.A. Pune) and checked it from time to time.
7. The water quality of existing source should be analyzed regularly by the applicant/firm on its own cost from the water quality laboratory. For drinking purpose treated water should be used.
8. The topographical, hydro-geological conditions and rainfall play very important role for fulfilling the requirement of drinking and domestic water. In view of Narhe groundwater for the drinking and domestic use, the groundwater recharge through rainwater harvesting measures in a quantity equal to the extraction of groundwater from the existing sources is mandatory to the applicant.
9. In view of water requirement for the drinking and domestic use, it is strongly recommended that minimum 70 % of the extracted groundwater must be recycled and reused for further usage.
10. During the Scarcity period the rules of Maharashtra Groundwater (Development and Management) Act 2009 are mandatory to the applicant.

A. H. S.
Surveyed by
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