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No. SG/GSDA/Pune/Tech/LGW/ 373 **/ 2026** **Date-** 13 APR 2026

To,
Suratwwala Business Group ltd
Mauje-Hinjewadi
Tq-Mulshi.Dist.Pune

Sub : Regarding Hydrogeological Survey at s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4 Mauje-Hinjewadi Tq-Mulshi.Dist.Pune.

Reff : Your application dated 02.04.2026

With reference to the above subject hydro-geological survey was carried out in the presence of concern personnels at the s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4 Mauje-Hinjewadi Tq-Mulshi.Dist.Pune. At the time of Hydrogeological survey the concern personnel Shri. Rajan was present.
The details of the proposed site are as below.

Name of Village	**Mauje-Hinjewadi Tq-Mulshi.Dist.Pune**
Co-ordinates	Lat -18^0 59'04.41"N,
	Long -73^0 74'83.32"E
Elevation (msl)	573.02 m
Toposheet& Quadrant No	47F/10
Watershed No.	BM-43
Category	Safe(As per Groundwater Assessment 2022-23)
Rock Type	Basalt
Aquifer (Water bearing Zone)	Shallow Aquifer (Jointed and Fractured Basalt)

Location:
The village Mauje-Hinjewadi Tq-Mulshi.Dist.Pune is a developing residential area situated in the south-east part of Pune. It is situated on the main Hinjewadi road,directly opposite the Hotel courtyard by Marriott.

Geomorphology:
The topography of the village area is, the South east direction area of village is having undulating topography with gentle slope NW to SE. The drainage of Mauje-Hinjewadi Tq-Mulshi.Dist.Pune i village belongs to dendritic drainage pattern.

Geology:

The area of the village Mauje-Hinjewadi Tq-Mulshi.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 considerd as per field observations and reported data.

Lithology	Greyish to brownish coarse grained soil	0.00 –0.40 m
	Highly to moderately weathered Basalt.	0.40 – 4.00 m
	Greyish black coloured, fine to medium grained, jointed and fractured Basalt.	4.00 – 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:- Mauje-Hinjewadi Tq-Mulshi.Dist.Pune village receives rain from south-west Monsoon and retreating of monsoon. On an average receives scanty rainfall. The average mean annual rainfall in the district is 1573 mm. 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 ranges from 0.00 – 0.40 m, the weathered basalt thickness ranges 0.40-4.00m,jointed and fractured basalt ranges 4.00 – 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 s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4is underlained 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 rainfall, groundwater extraction from other sources in the surrounding area is also the factors which control and affect the availability of groundwater. Presently, at the said s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4three groundwater source borewells is observed which are 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	Remark
			Dimensions /Daimeter in m	Depth in m	Water Level in m.			
					Winter	Summer		
1	Bore Well	s.no.27/1,27/5, 28/1pai, 28/b/1,28/b/2, 28/b/3,28/b/4	150 mm(R)	60 m(R)	6.50 m(R)	15.50 m (R)	Electrict submerssible pump 3 HP	40cu.m/day
2	Bore Well	s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4	150 mm(R)	60 m(R)	6.50 m(R)	15.50 m (R)	Electrict submerssible pump 1.5 HP	25cu.m/day
3	Bore Well	s.no.27/1, 27/5, 28/1pai, 28/b/1, 28/b/2, 28/b/3,28/b/4	150 mm(R)	60 m(R)	6.50 m(R)	15.50 m (R)	Electrict submerssible pump 3HP	38cu.m/day

As per information from the applicant representative, the existing source is seasonal in nature and presently used for domestic and drinking purpose.

Observations:

On the basis of Hydrogeological survey done by this office, three groundwater source (Bore well) is used for drinking and domestic purpose. From the groundwater availability point of view, the surveyed area is moderate yielding groundwater potential zone. By considering the existing source presently the approx 103Cu.m/Day water may available from the existing Bore well.

But according to the data available as per survey under RGNDWM following are observations -

1) The surveyed area is situated in low to moderate yielding groundwater potential zone.
2) According to groundwater prospect maps the site is located in Plateau Moderatly Dissected(PLM),which shows that site is indicates that the source is seasonal.
3) By considering the yield of sources in adjoining areas 103 Cu.m/Day may be available presently.
4) As per water requirement of applicant for drinking and domestic purpose, 3 no.of borewells having a diameter 150mm and depth 60m are recommended at the proposed land. The locations of proposed bore well sites are shown to applicants representative. By considering the proposed source -approx 95 to 98Cu.m/Day water may be available from the proposed Bore well.The existing source and proposed source approx.198 to 201 Cu.m/Day 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. As per water requirement of applicant for drinking and domestic purpose,3 no.of borewells having a diameter 150mm and depth 60m are recommended at the proposed land.The locations of proposed bore well sites are shown to applicants representative.The groundwater availability indicated in the report is specific to the time of survey.Since groundwater availability is dynamic and depends on various factors it may change temporally.

2. 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.

3. The available groundwater should be strictly used for drinking and domestic purposeonly. For future development of infrastructure the requirement of water should be fulfilled by tanker water/untreated raw water so that extraction/utilizationof groundwater is controlled.

4. 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.

5. For the sustainable availability of groundwater the Roof Top Rain Water Harvesting measures to the existing groundwater sources is must.

6.The rain water 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 sustainable 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.

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Surveyed By

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