

केन्द्रीय भूमिजल बोर्ड

जल शक्ति मंत्रालय, जल संसाधन, नदी विकास और गंगा संरक्षण विभाग भारत सरकार

Central Ground Water Board

Ministry of Jal Shakti,
Department of Water Resources, River Development
and Ganga Rejuvenation
Government of India

Report on

AQUIFER MAPPING AND MANAGEMENT PLAN

Mysore Taluk, Mysore District, Karnataka

दक्षिण पश्चिमी क्षेत्र, बेंगलुरु South Western Region, Bengaluru

FOR OFFICIAL USE ONLY No. SWR/RP/NQM/2022-23/12

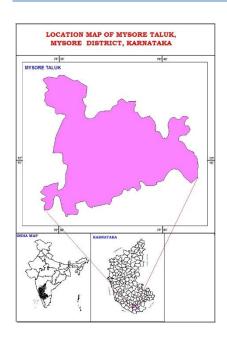
भारत सरकार जल शक्ति मंत्रालय जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग केन्द्रीय भूमिजल बोर्ड दक्षिण पश्चिम क्षेत्र, बेंगल्रु

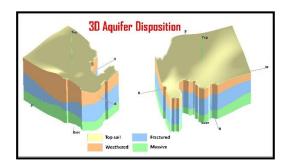


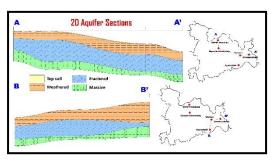
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development &
Ganga Rejuvenation
Central Ground Water
Board
South Western Region, Bengaluru

AQUIFER MAPS AND MANAGEMENT PLAN, MYSORE TALUK, MYSORE DISTRICT, KARNATAKA STATE

(AAP: -2020-2021)







Ву

Dr. S.S. Vittala, Scientist 'B', CGWB, SWR, Bengaluru

JULY 2022

AQUIFER MAPS AND MANAGEMENT PLAN, MYSORE TALUK, MYSORE DISTRICT, KARNATAKA STATE

(AAP: - 2020-2021)

Contents

1.	. SAL	JENT FEATURES	1
	1.1	Study area	1
	1.2	Population	1
	1.3	Rainfall and Climate	2
	1.4	Agriculture & Irrigation	3
	1.5	Geomorphology, Physiography & Drainage	4
	1.6	Geology and Soils	5
	1.7	Ground water resource availability and extraction	6
	1.8	Existing and future water demands (as per GWRA-2017 and 2020)	7
	1.9	Water level behavior	7
2	AQ	UIFER DISPOSITION	8
	2.1 Ac	quifer Types	8
3	GRO	OUND WATER RESOURCE, EXTRACTION, CONTAMINATION AND OTHER ISSUES	9
3	GR (OUND WATER RESOURCE, EXTRACTION, CONTAMINATION AND OTHER ISSUES Comparison of Ground Water Resource and Extraction	
3			10
	3.1	Comparison of Ground Water Resource and Extraction	10
	3.1	Comparison of Ground Water Resource and Extraction	10 10
	3.1 3.2 GRO	Comparison of Ground Water Resource and Extraction	10 10 10
	3.1 3.2 GRO 4.1	Comparison of Ground Water Resource and Extraction	10 10 10 10 11
	3.1 3.2 GR0 4.1 4.1.	Comparison of Ground Water Resource and Extraction	10 10 10 10 11
	3.1 3.2 GR0 4.1 4.1.	Comparison of Ground Water Resource and Extraction	
	3.1 3.2 GR0 4.1 4.1. 4.2	Comparison of Ground Water Resource and Extraction	
4	3.1 3.2 GR0 4.1 4.1 4.2 4.2	Comparison of Ground Water Resource and Extraction 3.2 Chemical quality of ground water and contamination DUND WATER RESOURCE ENHANCEMENT Resource Enhancement by Supply Side Interventions Benefit of Artificial recharge scheme Resource Savings by Demand Side Interventions Water Use Efficiency by Micro Irrigation Practices Change in cropping pattern	

AQUIFER MAPS AND MANAGEMENT PLAN, MYSORE TALUK, MYSORE DISTRICT, KARNATAKA STATE

1. SALIENT FEATURES

Name of the Taluk : Mysore

District : Mysore

State : Karnataka

Area : 804 sq.km

Population (Census 2011) : 3,88,706

Normal annual rainfall : 831 mm

1.1 Study area

Aquifer mapping studies have been carried out in Mysore taluk, Mysore district, Karnataka State under National Aquifer Mapping Project. The taluk is covering an area of 804 sq.kms. The geographical extents of Mysore taluk of Mysore district is located between North Latitudes 12° 07′ 01.91″ and 12° 27′ 07.39″ and East Longitudes 76° 27′ 16.88″ and 76° 50′ 11.80″. The taluk is covered in parts of Survey of India Toposheet Nos. 57 D/7, D/11, D/15, D/8, D/2 and D/16. Mysore taluk is bounded by Pandavapura and Srirangapatna taluks towards North, T.Narasipura and Chamarajanagara taluks towards East, Nanjangud taluk towards South and H.D.Kote and Hunsur taluks towards West. Taluk administration of Mysore is divided into 4 Hoblies and 37 Grama Panchayaths. Mysore town is the taluk head quarter. There are 123 villages present in the taluk. Location map of Mysore taluk is presented in Fig. 1.

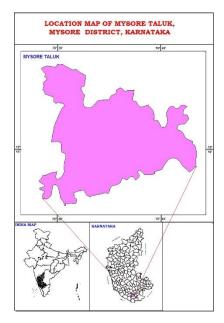


Fig. 1: Location Map

1.2 Population

According to 2011 census, the human population in Mysore taluk is 1281768 out of which 79% constitutes the urban population and only 21% constitutes the rural population. The taluk has an overall

population density of 1608 persons per sq.km. In Mysore taluk, the decadal variation in population from 2001-2011 is 23.42%. The population details are given in **Table-1**.

Table-1: Population details

Total	Male	Female	Share of	Rural	Urban	Decadal	Decadal	Decadal change
			the district	population	population	change in	change in	in urban
			population			population	rural	population
							population	
1281768	645316	636452	42.71	267541	1014227	23.42	11.81	26.90

Source: District at a glance 2018-19, Govt. of Karnataka

1.3 Rainfall and Climate

The taluk enjoys the semi-arid climate and also quite moderate throughout the year with a fairly hot summer and cold winter. March to May is the summer months. The mean maximum temperature is 30.9°C and the minimum temperature is 21°C. Relative humidity ranges from 50.8 to 85.8%. The taluk enjoys semi-arid climate. Dry and hot weather prevails in major part of the year. The area falls under Southern Dry agro-climatic zone of Karnataka state. The taluk depends mainly on monsoon for agricultural operations. Rainfall is erratic, irregular and deficit in the taluk. The annual actual rainfall for the period from 2011 to 2018 is given in **Table-2a** and Rainfall pattern table is given in **Table-2b**. It shows that the lowest rainfall of 354 mm is noticed during the year 2016 and highest rainfall is 1624 mm in the year 2017. The annual average rainfall during this period is 831 mm. The rainfall trend analysis for the period 2008-2018 of Mysore taluk is presented in **Table-2c** and in **Fig 2**.

Table 2a: Monthly actual rainfall (in mm)

Year	JAN	FEB	MAR	APR	MAY	PRE	JUN	JUL	AUG	SEPT	SWM	OCT	NOV	DEC	NEM	ANNUAL
2011	0	17	21	172	94	304	33	99	100	52	284	158	89	0	247	835
2012	0	0	0	154	96	250	27	16	159	145	347	146	42	0	188	785
2013	0	13	0	51	0	64	27	16	159	145	347	146	42	0	188	599
2014	0	0	33	23	220	276	53	78	116	234	481	167	5	30	202	959
2015	0	0	23	45	224	292	116	19	61	89	285	90	152	0	242	819
2016	2	0	0	11	74	87	56	125	23	8	212	23	1	31	55	354
2017	3	0	0	137	198	338	453	33	235	352	1073	194	9	10	213	1624
2018	0	10	2	28	186	226	102	77	39	120	338	107	0	0	107	671

(Source: KSNDMC, Bangalore)

Table 2b: Rainfall pattern

Block	Normal	Rainy	Average Te	mperature	Humidity %		
DIOCK	Rainfall(mm)	Days	Min. ⁰ C	Max. ⁰ C	Min	Max	
Mysore	823	53	21	30.9	50.8	85.8	

(Source: Directorate of Economic and Statistics)

Table- 2c: Actual Annual rainfall (mm) in rain gauge station from 2008 to 2018

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Rainfall(mm)	710	820	1077	804	687	694	792	899	389	1070	726	788

Source: District at a glance 2018-19, Govt. of Karnataka

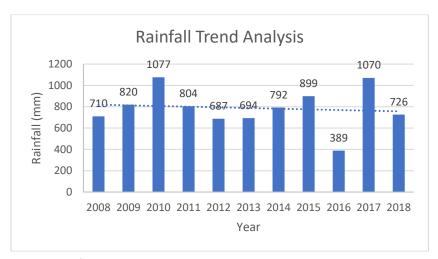


Fig. 2: Rainfall Trend Analysis

1.4 Agriculture & Irrigation

Agriculture is the main occupation in Mysore taluk. Major Kharif crops are paddy, maize, ragi and vegetables. Important crops of Rabi season are maize, vegetables and oilseeds **(Table-3)**. Water intensive crops like sugarcane and paddy are grown in 1.04 and 7.5% respectively of the total crop area. However, paddy is grown during Kharif period and is mainly dependent on rain water. Jowar is grown in 1%, coconuts in 7.55% and oil seeds in 4.84% of total crop area in the taluk. Pulses are grown more of about 41.87% of the total area. The annual crop sugarcane is grown in 456 Ha (1.04%) and short duration crop vegetable is grown in 2235 Ha (5.13%) of the crop area which require ground water during post monsoon season especially during summer.

Table-3: Cropping pattern 2018-2019 (Ha)

Crop	Paddy	Maize	Bajra	Jowar	Ragi	Wheat	Pulses		_		_	Cotton	Coconuts	
									tables	seeas	cane			crop
Area(ha)	3250	1288	0	434	7081	0	18217	2475	2235	2108	456	2670	3287	43501
Area %	7.5	2.96	0	1	16.30	0	41.87	5.68	5.13	4.84	1.04	6.13	7.55	100

Source: District at a glance 2018-19, Govt. of Karnataka

About 3.95% of the geographical area is covered by forest. It is observed that net sown area accounts for 49.76% and area sown more than once is 4.5% of total geographical area in Mysore taluk. Area not available for cultivation, the other uncultivable land and fallow land cover are 25.22%, 5.3% and 15.77% respectively of total geographical area. About 5.53% of net area irrigated is from wells, 11.7% are from bore wells and 71.57% from canals constituting 72% of irrigation is from surface water. Thus major source of irrigation is surface water (Fig.-3) and the irrigation from other sources is only 28%. The details of land use and the details of Irrigation are given in Table 4 and 5 respectively. The land use pattern is given in Fig.-4.

Table-4: Details of land use 2018-2019 (Ha)

Total	Area	Area not	Other	Fallow	Net	Area sown	Gross
Geographical	under	available for	uncultivable	land	sown	more than	sown
Area	Forest	cultivation	land		area	once	area
81740	3216	20620	4335	12891	40678	3684	44362
% of the area	3.95	25.22	5.3	15.77	49.76	4.5	54.27

Source: District at a glance 2018-19, Govt. of Karnataka

Table-5: Details of Irrigation

Source of Irrigation	ength in Km/No of structures	Gross area Irrigated (Ha)	Net area Irrigated (Ha.)	% of area
Canals	17	5946	5816	71.57
Tanks	103	790	520	6.40
Wells	61	495	450	5.53
Bore/Tube wells	3462	1038	950	11.70
Lift Irrigation	2	190	190	2.34
Other Sources		234	200	2.46
Total	3628	8693	8126	100

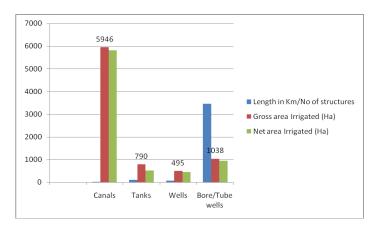


Fig. 3: Sources of Irrigation

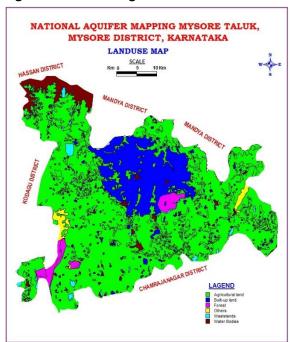
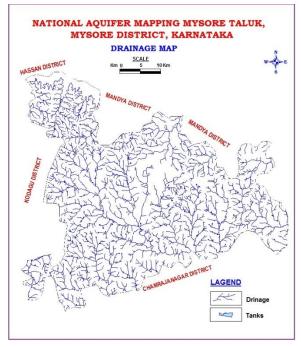


Fig. 4: Land use/land cover map

1.5 Geomorphology, Physiography & Drainage

Geomorphologically, the taluk is classified as denudational uplands with about 20-25% of the district falling in this category. The taluk shows various land forms like hills and plateaus, piedmont zone, plains, reservoir, reservoir islands, river/stream and tanks, etc. The next important geomorphological unit is older flood plains mainly in parts of Mysore taluk. Ridges and valleys form the third important unit and are mainly restricted to the north western part of the taluk. Flat valleys are not very common except

for isolated appearances. In plain land, the master slope runs from central to north and central to south. The general topographic elevation ranges from 1021 to 681m amsl from north to south of the taluk. The Mysore taluk is endowed with a number of perennial and non-perennial rivers/streams. The taluk is drained by 1st to 4th order streams which flow towards central to north and central to south. The drainage system is well developed in the taluk. The general drainage pattern is dendritic to sub-dendritic in nature (Fig. 5 and 6).



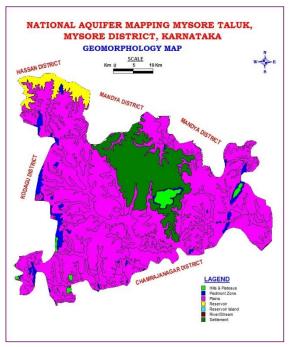
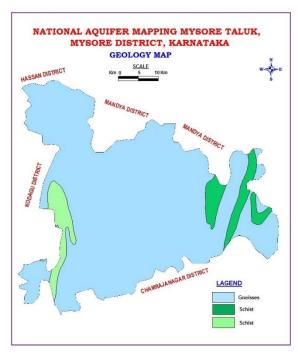


Fig. 5: Drainage map

Fig. 6: Geomorphology map

1.6 Geology and Soils

Geologically, the taluk is mainly composed of igneous and metamorphic rocks of Pre-Cambrian age either exposed at the surface or covered with a thin mantle of residual and transported soils. The rock formation in the taluk falls into two groups, gneissic complex and schistose formation. Pegmatite veins and dolerite dyke are common in the taluk and this has a bearing on the tectonic history of the area as well. Prominent lineaments seen in the taluk are oriented in a NNW –SSE direction. Near Mysore town a big batholith is seen and is known as Chamundi granites. The identification of stream pattern in the taluk is helpful in identification and interpretation of many geological features. The soil types of the taluk are grouped into three viz., clayey, clayey sketal and rocky land. It is less permeable compare to the sandy soil. It is having good moisture holding capacity and is fertile. These soils are fertile and generally produce good yields. The geology and soil maps have been given in **Fig. 7 and 8.**



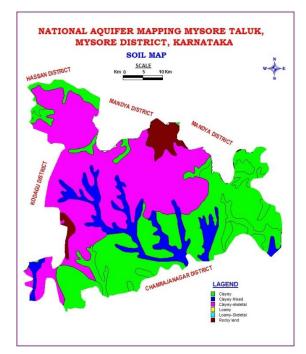


Fig. 7: Geology map

Fig. 8: Soil map

1.7 Ground water resource availability and extraction

As per the ground water resource estimation 2017 **(Table 6a),** the data on ground water resources shows that the net annual ground water availability is 6027 ham. The existing gross groundwater for irrigation is 1987 ham. The stage of groundwater development is 86% and falling under 'Semi-Critical' category.

Aquifer-wise total ground water resources down to 200 m depth are given in **Table-6b** below as per 2017 estimations.

Table.6.a Dynamic Ground Water Resource, (March 2017, Figures in Ham)

Net Annual	Existing	Existing	Existing	Allocation	Net Ground	Existing Stage	Category
Ground	Gross	Gross GW	Gross	For	Water	of Ground	
Water	Ground	Draft for	Ground	Domestic	Availability	Water	
Availability	Water	Domestic	Water	and	for Future	Development	
	Draft for	and	Draft for	Industrial	Irrigation	(%)	
	Irrigation	Industrial	All Uses	Use for	Develop-		
		Water		Next 25	ment		
		Supply		Years			
6027	1987	3171	5159	3238	1045	86	Semi-
							Critical

Table 6.b Total Ground Water Resources (2017) (Ham)

	Annual		n-storage GW sources	Total availability of fresh GW resources		
Taluk	replenishable GW resources	Phreatic	Fractured (Down to 200m)	Dynamic + phreatic in-storage + fractured		
Mysore	6027	4625	1845	12497		

1.8 Existing and future water demands (as per GWRA-2017 and 2020)

As per the GWRA 2017, the net ground water availability is 6027 ham and the total ground water draft for all uses is 5159 ham with stage of development at 86% and the taluk falls in Semi-Critical category. The domestic (Industrial sector) demand for next 25 years is estimated at 1045 Ham.

The details of dynamic (Phreatic) ground water resources for Mysore taluk as on March 2020 is shown in **Table.7.** It is observed that the stage of ground water extraction is slightly gone down in the taluk from 86 % to 71.32 % from 2017 to 2020.

Table.7 Detail of Dynamic Ground Water resource, (as on March 2020)

Annual	GW	GW	GW	Total	Annual GW	Net GW	Stage of	Categorizati
Extractab	Extractio	Extraction	Extraction	Extrac	Allocation	Availability	GW	on
le GW	n for	for	for	tion	for for	for future	Extractio	
Resource	Irrigation	Industrial	Domestic	(Ham)	Domestic	use (Ham)	n (%)	
(Ham)	Use	Use (Ham)	Use (Ham)		Use as on			
	(Ham)				2025 (Ham)			
5745.71	2236.75	0	1861.31	4098.06	2928.90	1576.47	71.32	Semi-
								Critical

1.9 Water level behavior

The water level data have been monitored from the representative dug wells and borewells under NHS monitoring programme for both pre and post monsoon seasons during 2019 in Aquifer I (Table 8). During premonsoon season water level ranges from 2.8 to 14.65 mbgl, whereas in postmonsoon it varies from 0.96 to 11.18 mbgl. Whereas in Aquifer II, the water level ranges from 1.94 to 27.11 mbgl in premonsoon and 1.25 to 15.74 mbgl during post monsoon as per Ground water Department, Govt of Karnataka data. (Table 9) and the maps shown in Fig 9 to 14.

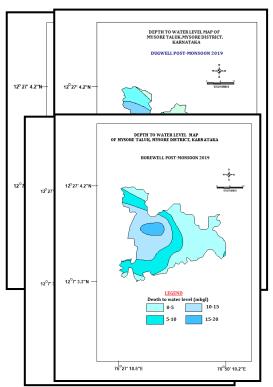
Table 8: Depth to water level of Pre and Post-monsoon (2019), CGWB

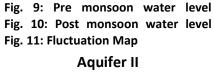
S. No.	SITE_TYPE	Location name	Depth (m bgl)	May-19	Nov-19
1	Bore Well	Mysore	52.00	13.40	9.30
2	Dug Well	Bevinahalli	15.00	4.20	1.90
3	Dug Well	Deveerammanahalli	19.34	3.82	2.05
4	Dug Well	Kalasthavadi	9.00	8.50	1.70
5	Dug Well	Kethupura	12.00	3.90	0.96
6	Dug Well	Mysore	20.00	14.65	11.18
7	Dug Well	Siddalingapura	5.00	2.80	1.45
8	Dug Well	Varuna	8.15	5.33	4.02

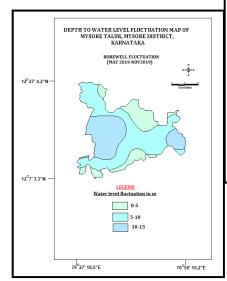
Table 9: Depth to water level of Pre and Post-monsoon (2019) (Ground Water Dept., Govt. of Karnataka)

•					
S. No	Well Type Location name		Depth (m bgl)	May-19	Nov-19
1	Bore Well	Bhogadi	129.27	27.11	15.74
2	Bore Well	Devalapura	93.29	10.03	4.48
3	Bore Well	Elwala	72.25	10.78	2.03
4	Bore Well	Hebbal	135	11.86	7.91
5	Bore Well	Jayapura	44	22.12	10.76
6	Bore Well	Kadakola B	62	6.35	3.19
7	Bore Well	Keelanapura B	50	16.66	4.17
8	Bore Well	Siddalingapura B	90.2	1.94	1.32
9	Bore Well	Sri Rampura	93.29	4.9	1.25

Aquifer I







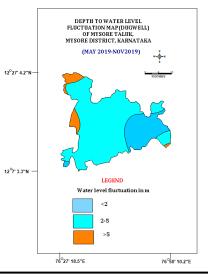


Fig.12: Pre monsoon water level Fig.13: Post monsoon water level Fig.14: Fluctuation Map

2 AQUIFER DISPOSITION

The occurrence and movement of water in the subsurface is broadly governed by geological frameworks i.e., nature of rock formations including their porosity (primary and secondary) and permeability. The principal aquifers in the area are Gneisses and Schist and the occurrence and movement of ground water in these rocks is controlled by various factors and it primarily depends on the degree of interconnection of secondary pores/voids developed by fracturing and weathering in the hard rock.

2.1 Aquifer Types

In Mysore taluk, there are mainly two types of aquifer systems;

- Aquifer-I (Phreatic aquifer) comprising weathered Gneisses and schist.
- Aquifer-II (Fractured aquifer) comprising fractured Gneisses and schist.

In Mysore taluk, Gneisses and Schists are the two major water bearing formations. Ground water occurs within the weathered and fractured formations semi-confined condition. The borewells were drilled by CGWB under exploratory programme reveals that the depth range of 200 to 261 m bgl. Weathering varies from 17.8 to 33.3 m bgl with yield ranges from 1 to 13.3 lps. Most potential fractures noticed between the depth of 30 to 180 m bgl. The 3D aquifer disposition models, 2D aquifer sections and 3D aquifer fence diagrams have been prepared and presented in **Fig. 15a, b and c.**

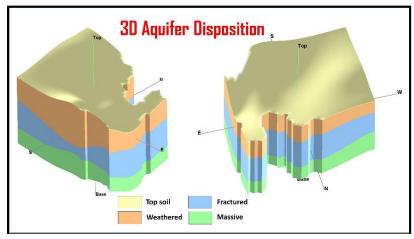


Fig. 15 a: 3D Aquifer model

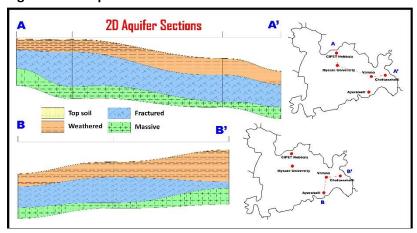


Fig. 15 b: 2D Aquifer section

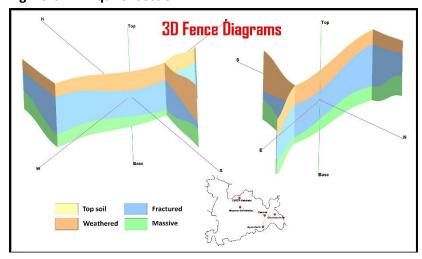


Fig. 15 c: 3D Aquifer fence diagram

3 GROUND WATER RESOURCE, EXTRACTION, CONTAMINATION AND OTHER ISSUES

The main ground water issues are over exploitation, Limited Ground Water Potential / Limited Aquifer Thickness / Sustainability, deeper water levels especially in Aquifer II, declining water level trend and urbanized areas of Mysore city thereby reducing the ground water recharge worthy areas which are all inter-related or inter dependent.

3.1 Comparison of Ground Water Resource and Extraction

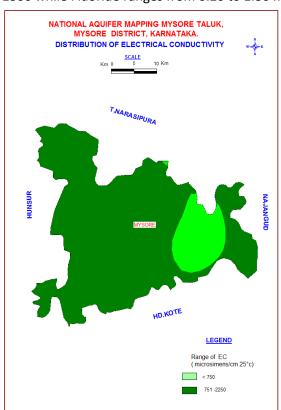
The Dynamic Ground Water Resource 2017 and as on 2020 have already been summarised above and are shown in **Table 10**. It is observed that the ground water availability in 2020 is less compare to 2017 due to decrease in rainfall and in water table. It is attributable to the improvement in the irrigation practice, influence of command area and also due to the water conservation / recharge activities carried out in the taluk by various state govt. and other agencies.

Table 10: Comparison of groundwater availability and draft scenario (in ham)

Taluk	March 2017			March 2020		
	GW	GW	Stage of GW	GW	GW	Stage of GW
Mysore	availability	Extraction	development	availability	Extraction	development
	6027	5159	86%	5745.71	4098.06	71%

3.2 3.2 Chemical quality of ground water and contamination

The water samples were collected in different parts of Mysore taluk during May 2018 and the data is given below in **Table 11**. The results of quality parameters shows that the EC ranges from 1050 to 1300 while Fluoride ranges from 0.20 to 1.30 mg/l. The nitrate varies from 4 to 34 mg/l **(Fig 16 and 17).**



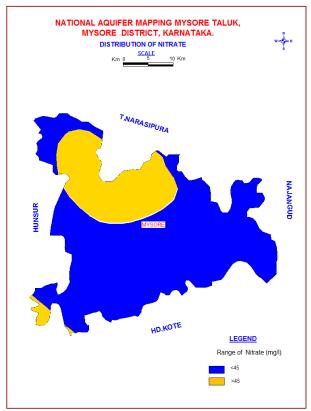


Fig. 16: EC distribution map

Fig. 17: Nitrate distribution map

In general, ground water quality in Mysore taluk is good for drinking purpose. Ground water samples have also been tested and found suitable for agriculture & irrigation purposes.

4 GROUND WATER RESOURCE ENHANCEMENT

4.1 Resource Enhancement by Supply Side Interventions

Supply side interventions like recharge to phreatic aquifer (Aquifer-I) in the taluk are recommended through construction of artificial recharge structures, viz. check dams, percolation tanks & subsurface dykes. The choice of recharge structures should be site specific and such structures need

to be constructed in areas already identified as feasible for artificial recharge. Artificial Recharge Structures and Water Conservation Plans are proposed in the taluk through utilizing the uncommitted surface runoff of 52.23 MCM (Table 12). By constructing 270 check dams, 47 percolation ponds and 1 subsurface dyke in the taluk, 4700 hectares of additional irrigation potential can be created OR the existing 71.32% of stage of ground water extraction would reduce to 58.11% (Table 13). The tentative locations of proposed AR structures and area feasible for recharge is shown in Fig.-18, whereas the location details of check dams and percolation tanks are presented in Annexure-I and II respectively

Table 12: Quantity of non-committed surface runoff & expected recharge through AR structures (As per Master Plan on Artificial Recharge in Karnataka, 2020)

Artificial Recharge Structures Proposed	Mysore taluk
Non committed monsoon runoff available (MCM)	52.23
Number of Check Dams	270
Number of Percolation Tanks	47
Number of Subsurface dykes	1
Number of Filter beds	5
Tentative total cost of the project (Rs. in lakhs)	3675.17
Expected recharge (MCM)	1305
Additional irrigation potential (in hectares)	4700

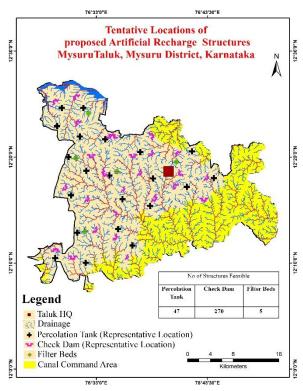


Fig. 18: Tentative locations of representative artificial recharge structures

4.1.1 Benefit of Artificial recharge scheme

Artificial recharge structures namely check dams and Nala bunds can be taken up on large scale in the over-exploited areas as a management plan to tackle falling ground water levels.

- These structures have proved in building-up of ground water levels and sustainability of ground water abstraction structures, mainly in bore wells.
- An increase in the area irrigated by ground water source is also observed in the area of influence.

- Such activities help in providing sustainable drinking water to the rural population. The
 qualitative result from farmer's perception indicate that, there is rising trend in ground water
 levels in the area of influence, productivity of crops enhanced and improvement in yield is
 observed in bore wells.
- The cropping pattern has shown that farm households have resumed growing crops such as grapes which were not previously grown in the area.

4.2 Resource Savings by Demand Side Interventions

4.2.1 Water Use Efficiency by Micro Irrigation Practices

It is observed that surface water is the major source for irrigation in the taluk. However, the irrigation also takes place through ground water in 1533 ha (17%) of irrigated area. Efficient irrigation practices like drip irrigation and sprinkler have to be adopted by the farmers in the existing 1533 ha of gross irrigated area. It is proposed to adopt micro irrigation (drip) techniques in water intensive sugarcane grown area 456 2316 ha. It is assumed that 50% of this area i.e., 228 ha is irrigated by ground water. Implementation of efficient irrigation techniques will contribute in saving ground water by 114 ham and thus enhancing the cumulative net availability of ground water from 7051 ham to 7165 ham. Efficient irrigation techniques will contribute in saving ground water and thus will improve stage of development in the long run.

4.2.2 Change in cropping pattern

Agriculture is the main occupation in Mysore taluk. Major Kharif crops are Paddy, Jowar and Pulses. Main crops of Rabi season are Ragi. The water intensive crops like fruits, vegetable and paddy are grown significantly in the taluk. However, the supply side and demand side interventions are able to bring the taluk in Safe category from Semi-Critical category, hence change in cropping pattern is not recommended.

Table 13: Details of Resource Enhancement after proposed supply side and demand side interventions

SI.	Resource Details	As per 2020
No.		Estimation
1.	Net Ground Water Availability in Ham	5746
2.	Existing ground water draft for all uses in Ham	4098
3.	Existing Stage of Ground Water Development in percentage %	71
4.	Expected Recharge from Artificial Recharge sources Ham	1305
5.	Cumulative Ground water availability after adopting AR in Ham	7051
6.	Expected improvement in stage of ground water development %	13.20
7.	50% of Sugarcane grown area (Ha)	228
8.	Expected Savings (m) (Surface irrigation – 2 m, Drip irrigation –	0.50
	1.5)	
9.	Saving due to adopting water Use Efficiency measures in Ham	114
10.	Saving due to adopting grey water in Ham	Nil
11.	Cumulative Ground water availability after adopting WUE and AR	7165
	in Ham	
12.	Change in Cropping Pattern	Not Recommended
13.	Expected improved stage of ground water development after	57 % from 71%
	implementation of WUE and AR %	
14.	Expected Change in Category	Semi-Critical to Safe

4.3 Regulation and Control

Mysore taluk has been categorized as **Semi-critical**, since the Stage of ground water development has reached 71% (GEC 2020), it may be encouraged to extract the ground water with care so that further ground water exploitation should not happen in the taluk. The Karnataka Ground Water Authority (KGWA) is tasked with regulation of groundwater and NOC has to be obtained for industrial/commercial purpose. Strict regulation has to be enforced by KGWA. Ground water recharge component needs to be made mandatory in the non-command area of the taluk for further development of ground water.

4.4 Other interventions proposed

- Periodical maintenance of artificial recharge structures should also be incorporated in the Recharge Plan.
- Roof top rain water harvesting.
- Micro irrigation.

5 SUMMARY AND RECOMMENDATIONS

The main ground water issues are over exploitation, Limited Ground Water Potential / Limited Aquifer Thickness / Sustainability, deeper water levels particularly in Aquifer II in some parts, urbanized areas of Mysore city thereby reducing the ground water recharge worthy areas which are all inter-related or inter dependent. The summary of ground water management plan of Mysore taluk is given in **Table-14**.

Table 14: Summary of Management plan

Stage of GW Extraction and Category (2020)	71%, Semi-Critical
Annual Extractable GW Resource (Ham)	5745.71
Total Extraction (Ham)	4098
Total GW Resources (Dynamic & Static up to the depth of 200 mbgl) (Ham)	12497
Ground Water Draft for Irrigation (Ham)	2236.75
Ground Water Resource Enhancement by Supply side Interventions	
No of Proposed AR structures	
SSD	1
PT	47
CD	270
FB	5
Expected Additional Recharge to GW due to AR (Ham)	1305
Additional Irrigation Potential that can be created (Ha)	4700
Total Estimated Expenditure (Rs. in Cr.)	36.75
Ground Water Resource Enhancement by Demand side Interventions	
Saving due to adopting water Use Efficiency measures in Ham	114
Saving due to adopting grey water in Ham	Nil
Expected improved stage of ground water development after implementation of WUE (%)	58% to 57%
Cumulative Ground water availability after adopting WUE and AR in Ham	7165
Change in Cropping Pattern	Not
Change in Cropping Fattern	Recommended
	Recommended

As per the resource estimation – 2020, Mysore taluk falls under Semi-Critical category with the stage of ground water extraction is 71.32%. Thus, there is need to formulate management strategy to tackle the over exploitation of ground water resources, mitigate water scarcity related issues in the taluk. It is suggested to adopt a scientific and multi-pronged ground water management strategy covering supply side interventions aspects as mentioned in the management plan suggested above.

57 % from 71%

Ground water resource enhancement by supply side interventions: Quantity of surface water available through non-committed surface run-off is estimated to be 5223 ham. This can be used to recharge the aquifer mainly through percolation tanks (47), check dams (270), filter beds (5) and sub surface dyke structures (1). However, the figures given are tentative and pre-field studies / DPR are recommended prior to implementation of these recharge structures. The volume of water expected to be conserved/recharged is 1305 ham through these AR structures. The approximate cost estimate for construction of these AR structures is Rs. 36.75 Cr. The additional area which can be brought under assured ground water irrigation will be about 4700 hectares OR the stage of ground water development can be reduced from 71% to 58%.

Ground water resource enhancement by demand side interventions: At present about 17% of irrigation is by wells and bore wells (ground water). The micro irrigation practices like drip and sprinkler irrigation are comparatively less practiced in comparison with traditional surface flooding mode of irrigation. The micro irrigation water efficient methodology needs to be adopted for growing water intensive sugarcane crop which is grown in 456 ha (1%) of the cropped area and is largely ground water dependent. It is assumed that 50% of this area i.e., 228 ha is irrigated by ground water. Implementation of efficient irrigation techniques will contribute in saving ground water by 114 ham and thus enhancing the cumulative net availability of ground water from 7051 ham to 7165 ham.

Change in cropping pattern: Agriculture is the main occupation in Mysore taluk. Major Kharif crops are Paddy, Jowar and Pulses. Main crops of Rabi season are Ragi. The water intensive crops like fruits, vegetable and paddy are grown significantly in the taluk. However, the supply side and demand side interventions are able to bring the taluk in Safe category from Semi-Critical category, hence change in cropping pattern is not recommended.

By adopting the supply side and demand side management plan itself, the stage of groundwater extraction decreases to 57% from 71% and the taluk falls under safe category.

Annexure-I: Tentative Locations of Proposed Check Dams, Mysuru Taluk, Mysuru District.

S. No	Longitude	Latitude	Village	Grama Panchayat	Taluk
1	76.527166	12.154034	Gujjegowdanapura	Harohalli(J)	Mysuru
2	76.533333	12.155726	Gujjegowdanapura	Harohalli(J)	Mysuru
3	76.504167	12.156250	Harohalli	Harohalli(J)	Mysuru
4	76.482169	12.159835	S.I.Madduru	Harohalli(J)	Mysuru
5	76.480531	12.165003	S.I.Madduru	Harohalli(J)	Mysuru
6	76.539791	12.166042	S.I.Arasinakere	Marballi	Mysuru
7	76.590255	12.167500	Marballi	Marballi	Mysuru
8	76.524595	12.171285	Harohalli	Harohalli(J)	Mysuru
9	76.510253	12.172500	Harohalli	Harohalli(J)	Mysuru
10	76.470794	12.172867	S.I.Kallahalli	Harohalli(J)	Mysuru
11	76.503910	12.174551	Harohalli	Harohalli(J)	Mysuru
12	76.597878	12.175534	Doddakaturu	Doora	Mysuru
13	76.513340	12.176279	Harohalli	Harohalli(J)	Mysuru
14	76.539325	12.180532	S.I.Arasinakere	Marballi	Mysuru
15	76.524744	12.180769	Harohalli	Harohalli(J)	Mysuru
16	76.546667	12.181435	Jayapura (Chatnahalli)	Jayapura	Mysuru
17	76.488124	12.181564	Gunchahalli (Chatnahalli) Majare Gunchanahalli	Harohalli(J)	Mysuru
18	76.604627	12.182960	Thaluru	Doora	Mysuru
19	76.621161	12.185833	Thaluru	Doora	Mysuru
20	76.485299	12.187029	Gunchahalli (Chatnahalli) Majare Gunchanahalli	Harohalli(J)	Mysuru
21	76.477500	12.188333	S.I.Kallahalli	Harohalli(J)	Mysuru
22	76.594707	12.188791	S.I.Murudahalli	Doora	Mysuru
23	76.586667	12.190000	Kellahalli	Jayapura	Mysuru
24	76.575662	12.190335	Thoreyanakaturu	Marballi	Mysuru
25	76.553333	12.192495	Jayapura (Chatnahalli)	Jayapura	Mysuru
26	76.531549	12.194167	Chikkanahalli	Jayapura	Mysuru
27	76.612801	12.195765	Thaluru	Doora	Mysuru
28	76.580737	12.196549	Kellahalli	Jayapura	Mysuru
29	76.609704	12.197991	Thaluru	Doora	Mysuru
30	76.533086	12.198581	Chikkanahalli	Jayapura	Mysuru
31	76.584625	12.200027	Kellahalli	Jayapura	Mysuru
32	76.526313	12.200057	Chikkanahalli	Jayapura	Mysuru
33	76.614747	12.202391	Thaluru	Doora	Mysuru
34	76.537940	12.203481	Mavinahalli	Jayapura	Mysuru
35	76.542204	12.204650	Mavinahalli	Jayapura	Mysuru
36	76.579523	12.207014	Kellahalli	Jayapura	Mysuru
37	76.556292	12.207802	Jayapura (Chatnahalli)	Jayapura	Mysuru
38	76.599615	12.208459	Vudaburu	Udbooru	Mysuru
39	76.533034	12.209167	Mavinahalli	Jayapura	Mysuru
40	76.562500	12.210541	Daripura	Jayapura	Mysuru
41	76.565498	12.213497	Daripura	Jayapura	Mysuru
42	76.553111	12.214125	Baradanapura	Jayapura	Mysuru
43	76.526638	12.215000	Mavinahalli	Jayapura	Mysuru

44	76.536662	12.215010	Mavinahalli	Jayapura	Mysuru
45	76.547787	12.218320	Baradanapura	Jayapura	Mysuru
46	76.593333	12.218750	Vudaburu	Udbooru	Mysuru
47	76.604170	12.219441	Vudaburu	Udbooru	Mysuru
48	76.593547	12.220484	Vudaburu	Udbooru	Mysuru
49	76.569880	12.226667	Dhanagahalli	Dhanagalli	Mysuru
50	76.574714	12.227190	Dhanagahalli	Dhanagalli	Mysuru
51	76.529780	12.230394	S.I.Gopalapura	Gopalapura	Mysuru
52	76.532849	12.234012	S.I.Gopalapura	Gopalapura	Mysuru
53	76.543446	12.234279	S.I.Gopalapura	Gopalapura	Mysuru
54	76.605385	12.234677	Chavadahalli	Dhanagalli	Mysuru
55	76.598931	12.237987	Halalu	Dhanagalli	Mysuru
56	76.594167	12.238352	Kenchalagodu	Dhanagalli	Mysuru
57	76.607073	12.238780	Chavadahalli	Dhanagalli	Mysuru
58	76.528920	12.240473	Anagalli	Gopalapura	Mysuru
59	76.559506	12.241822	Mulluru	Gopalapura	Mysuru
60	76.579939	12.244431	Kenchalagodu	Dhanagalli	Mysuru
61	76.600028	12.247931	Halalu	Dhanagalli	Mysuru
62	76.540666	12.249000	Anagalli	Gopalapura	Mysuru
63	76.544771	12.249885	Anagalli	Gopalapura	Mysuru
64	76.650321	12.250321	Mandakalli	Kadakola	Mysuru
65	76.545724	12.252138	Anagalli	Gopalapura	Mysuru
66	76.627069	12.252715	Srirampura	Srirampura	Mysuru
67	76.654422	12.253045	Mandakalli	Kadakola	Mysuru
68	76.595833	12.253085	Yadehalli	Dhanagalli	Mysuru
69	76.530696	12.253196	Anagalli	Gopalapura	Mysuru
70	76.517053	12.255813	Madhahalli	Doddamaragowdanahalli	Mysuru
71	76.641741	12.256348	S.I.Nachanahalli		Mysuru
72	76.517328	12.257337	Madhahalli	Doddamaragowdanahalli	Mysuru
73	76.688124	12.258204	S. Utthanahalli	Hosahundi	Mysuru
74	76.665367	12.258883	Bandipalya	Hosahundi	Mysuru
75	76.607917	12.259167	Lingambudhi		Mysuru
76	76.644857	12.259167	S.I.Nachanahalli		Mysuru
77	76.660904	12.262500	Chamundibetta	Chamundibetta	Mysuru
78	76.601327	12.263333	Lingambudhi		Mysuru
79	76.678041	12.264046	S. Utthanahalli	Hosahundi	Mysuru
80	76.690833	12.265833	S. Utthanahalli	Hosahundi	Mysuru
81	76.718637	12.266059	S.I.Yandhalli	Mosambayanahalli	Mysuru
82	76.535921	12.267127	K.G.Javanahalli	Doddamaragowdanahalli	Mysuru
83	76.522469	12.267500	Madhahalli	Doddamaragowdanahalli	Mysuru
84	76.545833	12.267967	K.G.Mellahalli (Kherihunde)	Beerihundi	Mysuru
85	76.641632	12.267969	S.I.Nachanahalli		Mysuru
86	76.707858	12.267979	S. Utthanahalli	Hosahundi	Mysuru
87	76.651310	12.269167	S.I.Nachanahalli		Mysuru
88	76.530145	12.269656	Madhahalli	Doddamaragowdanahalli	Mysuru
89	76.726230	12.270172	Choranahalli	Varuna	Mysuru

90	76.615613	12.270643	Lingambudhi		Mysuru
91	76.491667	12.273130	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
92	76.696856	12.273977	Lalithadripura (Sakhahalli)	Alanahalli	Mysuru
93	76.570417	12.275000	Kergalli	Beerihundi	Mysuru
94	76.493219	12.275833	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
95	76.590400	12.278040	Kergalli	Beerihundi	Mysuru
96	76.512365	12.278120	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
97	76.659583	12.279167	Mysore		Mysuru
98	76.509083	12.279562	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
99	76.645143	12.280000	Mysore		Mysuru
100	76.592500	12.282026	Kergalli	Beerihundi	Mysuru
101	76.615833	12.282500	Dattagalli		Mysuru
102	76.530833	12.283695	S.I.Shettynayakanahalli	Doddamaragowdanahalli	Mysuru
103	76.550136	12.283775	Komarabeedu	Beerihundi	Mysuru
104	76.633326	12.284167	Malalawadi		Mysuru
105	76.504283	12.284477	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
106	76.499792	12.285000	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
107	76.658239	12.285000	Mysore		Mysuru
108	76.741667	12.285000	Vajamangala	Vajamangala	Mysuru
109	76.729987	12.285821	Chikkahalli	Varuna	Mysuru
110	76.517531	12.287068	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
111	76.508699	12.288070	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru
112	76.673607	12.288429	Kurubarahalli		Mysuru
113	76.646215	12.288646	Mysore		Mysuru
114	76.665000	12.289583	Mysore		Mysuru
115	76.609238	12.289698	Dattagalli		Mysuru
116	76.686740	12.292193	Kurubarahalli		Mysuru
117	76.584167	12.292377	Maratikyathanahalli	Maratikyathanahalli	Mysuru
118	76.697732	12.292431	Alanahalli	Alanahalli	Mysuru
119	76.603445	12.292500	Bogadhi	Bogadi	Mysuru
120	76.561702	12.293333	K.Hemmanahalli	Belawadi	Mysuru
121	76.732369	12.293685	Vajamangala	Vajamangala	Mysuru
122	76.729840	12.293830	Bugathagahalli	Vajamangala	Mysuru
123	76.596214	12.293863	Bogadhi	Bogadi	Mysuru
124	76.674943	12.294167	Kurubarahalli		Mysuru
125	76.608732	12.294577	Bogadhi	Bogadi	Mysuru
126	76.544339	12.294828	Jattihundi	Maratikyathanahalli	Mysuru
127	76.682125	12.294916	Kurubarahalli		Mysuru
128	76.654823	12.295550	Mysore		Mysuru
129	76.713514	12.298795	Nadanahalli	Alanahalli	Mysuru
130	76.573697	12.299014	Maratikyathanahalli	Maratikyathanahalli	Mysuru
131	76.730669	12.299336	Vajamangala	Vajamangala	Mysuru
132	76.537588	12.299663	K.Hemmanahalli	Belawadi	Mysuru
133	76.723529	12.300515	Bugathagahalli	Vajamangala	Mysuru
134	76.552138	12.300833	K.Hemmanahalli	Belawadi	Mysuru
135	76.499885	12.304289	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru

136	76.524167	12.305624	Manikyapura	Doddamaragowdanahalli	Mysuru
137	76.500257	12.306153	Kamaravalli	Doddamaragowdanahalli	Mysuru
138	76.682831	12.306279	Kurubarahalli		Mysuru
139	76.618333	12.307458	Vijayashripura		Mysuru
140	76.630828	12.307500	Mysore		Mysuru
141	76.600247	12.307624	Bogadhi	Bogadi	Mysuru
142	76.562244	12.307628	Madhagalli	Belawadi	Mysuru
143	76.634053	12.307860	Mysore		Mysuru
144	76.662959	12.307942	Mysore		Mysuru
145	76.682167	12.308167	Kyathamaranahalli		Mysuru
146	76.741544	12.308333	Vajamangala	Vajamangala	Mysuru
147	76.587526	12.309167	Bogadhi	Bogadi	Mysuru
148	76.657025	12.309673	Mysore		Mysuru
149	76.698704	12.311111	Yaraganahalli		Mysuru
150	76.649997	12.311502	Mysore		Mysuru
151	76.658333	12.311955	Mysore		Mysuru
152	76.628739	12.312115	Mysore		Mysuru
153	76.595450	12.313333	Bogadhi	Bogadi	Mysuru
154	76.517267	12.314278	Bommenahalli	Nagawala	Mysuru
155	76.739746	12.314449	Vajamangala	Vajamangala	Mysuru
156	76.539680	12.314874	Huyilala	Nagawala	Mysuru
157	76.713781	12.315323	Hanchya	Hanchya	Mysuru
158	76.698421	12.315921	Sathagahalli	Hanchya	Mysuru
159	76.710963	12.317078	Hanchya	Hanchya	Mysuru
160	76.503053	12.317500	Bommenahalli	Nagawala	Mysuru
161	76.631667	12.318308	Paduvarahalli		Mysuru
162	76.598900	12.319750	Hinakallu	Hinkal	Mysuru
163	76.721667	12.319816	Hanchya	Hanchya	Mysuru
164	76.696106	12.320000	Sathagahalli	Hanchya	Mysuru
165	76.608796	12.321307	Hinakallu	Hinkal	Mysuru
166	76.671204	12.321536	Eranagere		Mysuru
167	76.668937	12.322041	Eranagere		Mysuru
168	76.505430	12.322044	Bommenahalli	Nagawala	Mysuru
169	76.536667	12.325214	Bommenahalli	Nagawala	Mysuru
170	76.643780	12.325521	Maragowdanahalli		Mysuru
171	76.593333	12.325713	Basavanahalli	Belawadi	Mysuru
172	76.679575	12.326274	Kyathamaranahalli		Mysuru
173	76.523542	12.326458	Nagavala	Nagawala	Mysuru
174	76.703990	12.326844	Sathagahalli	Hanchya	Mysuru
175	76.565879	12.327106	Belawadi	Belawadi	Mysuru
176	76.656210	12.330188	Eranagere		Mysuru
177	76.610207	12.330573	Hinakallu	Hinkal	Mysuru
178	76.627285	12.330762	Maragowdanahalli		Mysuru
179	76.590565	12.333234	Hinakallu	Hinkal	Mysuru
180	76.645000	12.334167	Maragowdanahalli		Mysuru
181	76.631286	12.334692	Maragowdanahalli		Mysuru

182	76.607749	12.335289	Hinakallu	Hinkal	Mysuru
183	76.542158	12.335395	Huyilala	Nagawala	Mysuru
184	76.566249	12.335420	Belawadi	Belawadi	Mysuru
185	76.555422	12.335823	Huyilala	Nagawala	Mysuru
186	76.519795	12.335833	Nagavala	Nagawala	Mysuru
187	76.708662	12.336221	Hanchya	Hanchya	Mysuru
188	76.515464	12.338194	Nagavala	Nagawala	Mysuru
189	76.637056	12.338741	Maragowdanahalli		Mysuru
190	76.676976	12.338790	Devanuru		Mysuru
191	76.566412	12.338878	Belawadi	Belawadi	Mysuru
192	76.527808	12.342409	Nagavala	Nagawala	Mysuru
193	76.521688	12.342885	Nagavala	Nagawala	Mysuru
194	76.627302	12.344286	Metagalli	Siddalingapura	Mysuru
195	76.585000	12.345000	Hootagalli	Koorgalli	Mysuru
196	76.596493	12.345498	Hebbala		Mysuru
197	76.638180	12.347500	Metagalli	Siddalingapura	Mysuru
198	76.525833	12.347708	Nagavala	Nagawala	Mysuru
199	76.546487	12.349404	Ilawala	Yelawala	Mysuru
200	76.600417	12.351667	Hebbala		Mysuru
201	76.647480	12.352520	Belavattha	Siddalingapura	Mysuru
202	76.630833	12.352917	Metagalli	Siddalingapura	Mysuru
203	76.592541	12.354729	Hebbala		Mysuru
204	76.546290	12.355027	Ilawala	Yelawala	Mysuru
205	76.631024	12.355130	Metagalli	Siddalingapura	Mysuru
206	76.610833	12.357051	Hebbala		Mysuru
207	76.557264	12.357139	Ilawala	Yelawala	Mysuru
208	76.572353	12.357843	Kooragalli	Koorgalli	Mysuru
209	76.573775	12.360343	Kooragalli	Koorgalli	Mysuru
210	76.525438	12.360424	Karakanahalli	Yelawala	Mysuru
211	76.588333	12.362333	Kooragalli	Koorgalli	Mysuru
212	76.615000	12.362637	Hebbala		Mysuru
213	76.552105	12.363289	Ilawala	Yelawala	Mysuru
214	76.499167	12.364050	Rattanahalli	Gungralchathra	Mysuru
215	76.529640	12.364129	Karakanahalli	Yelawala	Mysuru
216	76.497488	12.365000	Rattanahalli	Gungralchathra	Mysuru
217	76.572944	12.365056	Kooragalli	Koorgalli	Mysuru
218	76.537803	12.365607	Karakanahalli	Yelawala	Mysuru
219	76.576431	12.365707	Kooragalli	Koorgalli	Mysuru
220	76.600019	12.365833	Hebbala		Mysuru
221	76.571717	12.366372	Kooragalli	Koorgalli	Mysuru
222	76.637608	12.367137	Shyadanahalli	Naganahalli	Mysuru
223	76.511667	12.369015	Rattanahalli	Gungralchathra	Mysuru
224	76.552744	12.369400	Mydanahalli	Koorgalli	Mysuru
225	76.498500	12.369917	Rattanahalli	Gungralchathra	Mysuru
226	76.554051	12.372616	Mydanahalli	Koorgalli	Mysuru
227	76.502947	12.372693	Rattanahalli	Gungralchathra	Mysuru

228	76.499080	12.376316	Rattanahalli	Gungralchathra	Mysuru
229	76.506158	12.379004	Rattanahalli	Gungralchathra	Mysuru
230	76.561471	12.380893	Megalapura	Koorgalli	Mysuru
231	76.525611	12.381056	Yalachahalli	Gungralchathra	Mysuru
232	76.472385	12.384167	S.I.Dhadadhakallahalli	Gungralchathra	Mysuru
233	76.522083	12.385000	Yalachahalli	Gungralchathra	Mysuru
234	76.554533	12.385833	Megalapura	Koorgalli	Mysuru
235	76.508544	12.387703	Gungrala Chatra	Gungralchathra	Mysuru
236	76.520000	12.388189	Yalachahalli	Gungralchathra	Mysuru
237	76.535392	12.391225	Chikkanahalli	Ananduru	Mysuru
238	76.503139	12.394167	Gungrala Chatra	Gungralchathra	Mysuru
239	76.535833	12.395156	Chikkanahalli	Ananduru	Mysuru
240	76.489854	12.395383	S.I.Dhadadhakallahalli	Gungralchathra	Mysuru
241	76.483659	12.395651	S.I.Yachegowdanahalli	Gungralchathra	Mysuru
242	76.468489	12.397006	S.I.Yachegowdanahalli	Gungralchathra	Mysuru
243	76.546844	12.401188	Chikkanahalli	Ananduru	Mysuru
244	76.517718	12.401558	Kalluru Naganahalli Kaval	Ananduru	Mysuru
245	76.506783	12.402500	Kalluru Naganahalli	Ananduru	Mysuru
246	76.531330	12.403440	Ananduru	Ananduru	Mysuru
247	76.512132	12.405584	Kalluru Naganahalli	Ananduru	Mysuru
248	76.541385	12.406373	Chikkanahalli	Ananduru	Mysuru
249	76.521974	12.408333	Kalluru Naganahalli Kaval	Ananduru	Mysuru
250	76.538169	12.410833	Ananduru	Ananduru	Mysuru
251	76.482500	12.411667	S.Hemmanahalli	Gungralchathra	Mysuru
252	76.489564	12.412817	S.Hemmanahalli	Gungralchathra	Mysuru
253	76.513816	12.412877	Kalluru Naganahalli	Ananduru	Mysuru
254	76.559974	12.412878	Undawadi	Ananduru	Mysuru
255	76.508901	12.414716	Kalluru Naganahalli	Ananduru	Mysuru
256	76.548333	12.415257	Ananduru	Ananduru	Mysuru
257	76.511646	12.419167	Kalluru Naganahalli	Ananduru	Mysuru
258	76.536715	12.419191	Ananduru	Ananduru	Mysuru
259	76.542075	12.420833	Ananduru	Ananduru	Mysuru
260	76.484042	12.421054	Amachawadi	Gungralchathra	Mysuru
261	76.515000	12.422168	Kalluru Naganahalli	Ananduru	Mysuru
262	76.545295	12.426667	Ananduru	Ananduru	Mysuru
263	76.512644	12.428638	Yadahalli	Ananduru	Mysuru
264	76.517500	12.428712	Yadahalli	Ananduru	Mysuru
265	76.534980	12.430813	Ananduru	Ananduru	Mysuru
266	76.530081	12.431165	Ananduru	Ananduru	Mysuru
267	76.499167	12.431607	Yadahalli	Ananduru	Mysuru
268	76.516747	12.435000	Yadahalli	Ananduru	Mysuru
269	76.495516	12.435516	Cholenahalli		Mysuru

(Source: Master Plan, CGWB, 2020. It is likely that the number of structures proposed may vary depending upon the ground truth verification and feasibility criteria)

Annexure-II: Tentative Locations of Proposed Percolation Tanks, Mysuru Taluk, Mysuru District.

S. No.	Longitude	Latitude	Village	Grama Panchayat	Taluk		
1	76.5332556	12.1667887	Harohalli	Harohalli(J)	Mysuru		
2	76.4852771	12.1742841	Gunchahalli (Chatnahalli)	Harohalli(J)	Mysuru		
_	70.4032771	12.17 42041	Majare Gunchanahalli	Transmann(3)	iviysara		
3	76.5035752	12.1795665	Harohalli	Harohalli(J)	Mysuru		
4	76.5288213	12.1842779	Chikkanahalli	Jayapura	Mysuru		
5	76.6068676	12.1940336	Thaluru	Doora	Mysuru		
6	76.5917904	12.2046221	Vudaburu	Udbooru	Mysuru		
7	76.5199459	12.2142115	Mavinahalli	Jayapura	Mysuru		
8	76.5842865	12.2201125	Dhanagahalli	Dhanagalli	Mysuru		
9	76.5661788	12.2213974	Dhanagahalli	Dhanagalli	Mysuru		
10	76.5496415	12.2291069	Baradanapura	Jayapura	Mysuru		
11	76.5229916	12.2340086	S.I.Gopalapura	Gopalapura	Mysuru		
12	76.6347311	12.2564707	S.I.Nachanahalli		Mysuru		
13	76.5404806	12.2568514	Anagalli	Gopalapura	Mysuru		
14	76.5911631	12.2670831	Kergalli	Beerihundi	Mysuru		
15	76.6684242	12.2682728	Chamundibetta	Chamundibetta	Mysuru		
16	76.5102377	12.2730318	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru		
17	76.5486898	12.2736028	K.G.Mellahalli (Kherihunde)	Beerihundi	Mysuru		
18	76.5806697	12.2791232	Kergalli	Beerihundi	Mysuru		
19	76.6925996	12.2861664	Kurubarahalli		Mysuru		
20	76.4938670	12.2943517	Doddamaragowdanahalli	Doddamaragowdanahalli	Mysuru		
21	76.5924718	12.2994914	Bogadhi	Bogadi	Mysuru		
22	76.6392996	12.2994914	Mysore	· ·	Mysuru		
23	76.7351681	12.3000148	Vajamangala	Vajamangala	Mysuru		
24	76.7116353	12.3031081	Nadanahalli	Alanahalli	Mysuru		
25	76.5705808	12.3040599	Maratikyathanahalli	Maratikyathanahalli	Mysuru		
26	76.6895539	12.3095803	Kyathamaranahalli		Mysuru		
27	76.5341513	12.3115790	Bommenahalli	Nagawala	Mysuru		
28	76.6502390	12.3162140	Mysore	_	Mysuru		
29	76.6919571	12.3238570	Sathagahalli	Hanchya	Mysuru		
30	76.6345407	12.3246185	Paduvarahalli		Mysuru		
31	76.5062164	12.3332321	Nagavala	Nagawala	Mysuru		
32	76.6038933	12.3402277	Hinakallu	Hinkal	Mysuru		
33	76.5408851	12.3404181	Huyilala	Nagawala	Mysuru		
34	76.6191218	12.3409892	Hebbala		Mysuru		
35	76.7006183	12.3420361	Rammanahalli	Rammanahalli	Mysuru		
36	76.5768626	12.3451770	Belawadi	Belawadi	Mysuru		
37	76.5526873	12.3463192	Huyilala	Nagawala	Mysuru		
38	76.5229916	12.3529816	Nagavala	Nagawala	Mysuru		
39	76.5639183	12.3611670	Kooragalli	Koorgalli	Mysuru		
40	76.6249896	12.3652572	Hebbala		Mysuru		
41	76.5240623	12.3654500	Karakanahalli	Yelawala	Mysuru		
42	76.5359121	12.3770023	Karakanahalli	Yelawala	Mysuru		
43	76.4883466	12.3818207	S.I.Dhadadhakallahalli	Gungralchathra	Mysuru		
44	76.5316289	12.3864179	Yalachahalli	Gungralchathra	Mysuru		
45	76.4957705	12.4104694	Kalluru Naganahalli	Ananduru	Mysuru		
46	76.5296541	12.4104694	Ananduru	Ananduru	Mysuru		
47	76.4847298	12.4281726	Cholenahalli		Mysuru		
/Source	(Source: Master Plan, CGWB, 2020, It is likely that the number of structures proposed may vary depending upon						

(Source: Master Plan, CGWB, 2020. It is likely that the number of structures proposed may vary depending upon the ground truth verification and feasibility criteria)

Annexure-II: Tentative Locations of Proposed Filter Beds, Mysuru Taluk, Mysuru District.

S. No	Longitude	Latitude	Village	Grama Panchayat	Taluk
1	76.5322556	12.2161198	Mavinahalli	Jayapura	Mysuru
2	76.5826506	12.3102890	Basavanahalli	Belawadi	Mysuru
3	76.6760028	12.3254521	Kyathamaranahalli		Mysuru
4	76.5181851	12.3314721	Nagavala	Nagawala	Mysuru
5	76.5377442	12.4021254	Chikkanahalli	Ananduru	Mysuru

(Source: Master Plan, CGWB, 2020. It is likely that the number of structures proposed may vary depending upon the ground truth verification and feasibility criteria)