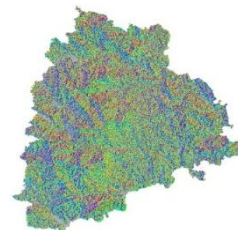
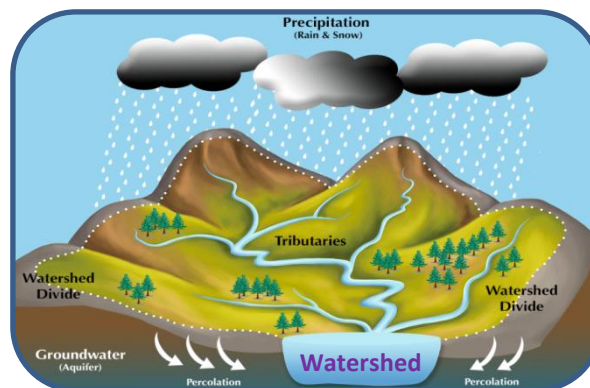


Government of Telangana – Forest Department



SITE SUITABILITY ANALYSIS FOR WATER HARVESTING STRUCTURES USING REMOTE SENSING & GIS

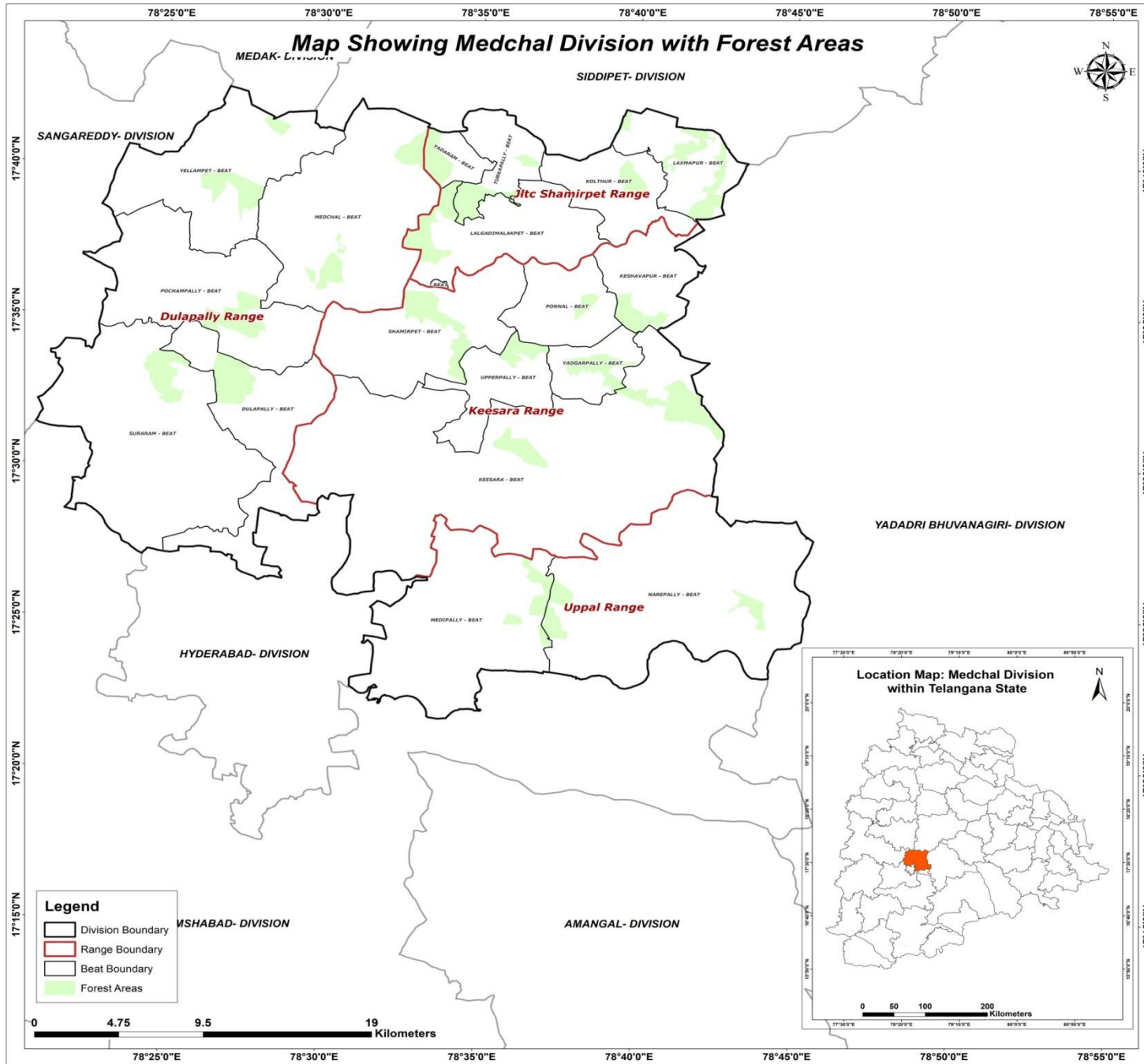


SITE SUITABILITY ANALYSIS FOR WATER HARVESTING STRUCTURES USING REMOTE SENSING & GIS

Circle: Charminar
District: Medchal - Malkajgiri
Division: Medchal

**Prepared at Geomatics Centre
O/o Prl.Chief Conservator of Forests
Aranya Bhavan, Saifabad
Hyderabad - 500004**

Map Showing Medchal Division with Forest Areas



METHODOLOGY

Various methods are available to evaluate the suitability of locations for Percolation Tanks and other SMC structures using Arc GIS.

- A common approach is to use Geographic Information System (GIS) tools to decide the suitability by analysing factors like topography, vegetation density, distance to water sources, and terrain slope.
- Data was gathered from various sources, including the Raster Sentinel data obtained from the Copernicus open access hub.
- Elevation values were applied to the raster data using the SNAP software to create a Digital Elevation Model (DEM).
- Using Arc GIS, streams were mapped based on DEM, and potential percolation tank sites were identified based on stream order.
- Slope data generated from the CARTOSAT 30 m DEM (Source: Bhuvan) were also included in the analysis.
- By overlaying these spatial datasets and applying specific criteria, GIS can help identify optimal locations for building percolation tanks.
- Once the best location is identified, the catchment area is determined.
- The location is then ranked on the basis of catchment area and vegetation cover, with rankings ranging from I to V.



FLOW CHART FOR METHODOLOGY



Guidelines for building Percolation Tanks:

- Refer to the Site Suitability Map given by the GIS Cell for suitable locations
- Choose the best location for constructing a percolation tank based on the ranking priority. The priority for treatment of the watershed should be based on stream order, with primary streams taking precedence over secondary streams and secondary streams taking precedence over tertiary streams. This phased approach will ensure effective management of the watershed.
- Field conditions such as local climate, slope, vegetation and soil type must be considered when determining the location. It is important to move either upstream or downstream for a distance of about 50M, depending on the specific conditions of the site.
- It is essential to follow the priority given in the map. If no specific points are indicated, site suitability should be considered a determining factor.
- Encroached areas were not considered when demarcating points for constructing the Percolation tank.
- In the field, where streams are found at the optimal location, a percolation tank can be built if a point is missing on the map.
- The catchment area should also be considered when estimating the construction requirements like length of the bund, height of the bund, wear width etc., after verifying with the actual field conditions.
- Planting native vegetation around the tank can stabilize the soil, prevent erosion, and improve water absorption. Use plants that are well suited to the local environment.



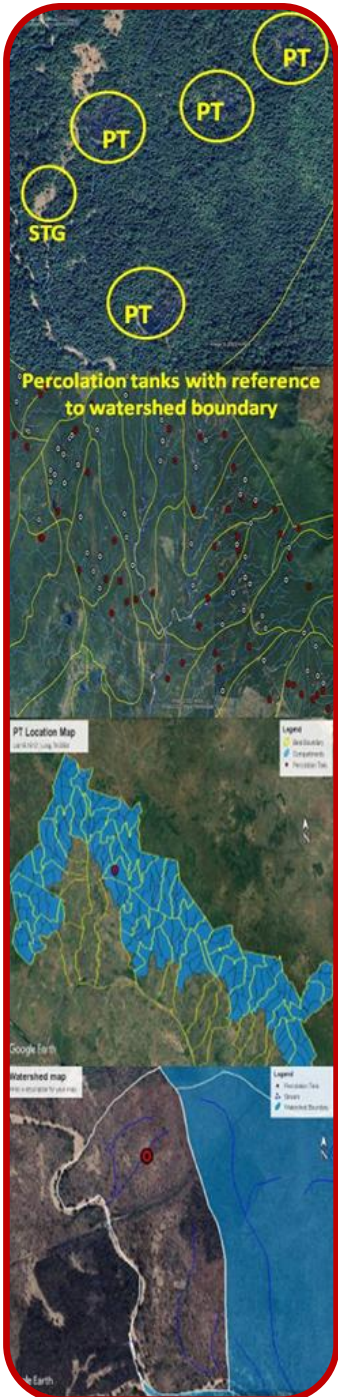
Suitability criteria for Check-Dams and Percolation Tanks (SITE SUITABILITY INDEX)

Index	Slope(Degrees)	Density Class
Highly suitable	0-5	Blank & Scrub
Moderately suitable	0-5	Open Forest
Least suitable	0-5	Dense Forest

Suitability criteria for Continuous/Staggered contour trenches

Rank	Slope classes (Degrees)	Density Classes
Highly Suitable	>5 and <= 10	Blanks
Moderately Suitable	>5 and <= 10	Scrub forest
Least suitable	>5 and <= 10	Open forest
	> 10 and < 25	Blanks & scrubs
MPTs and SGPs	>5 and <= 10	Dense Forest
	> 10 and < 25	Open and Dense forest





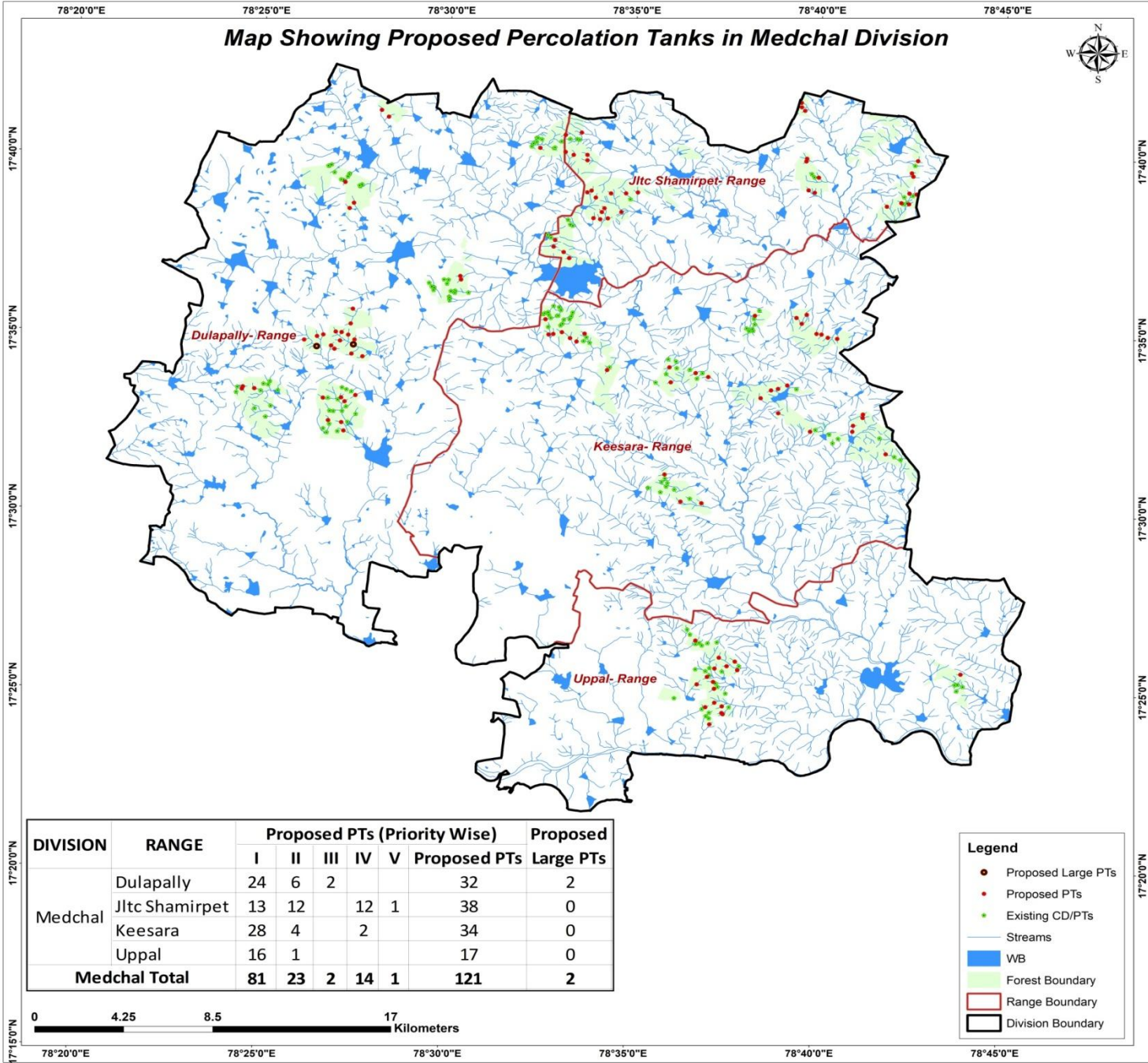
PRIORITY CLASSES FOR PERCOLATION TANK

Priority	Catchment Area(Ha)	Density Class
1	0-25	Scrub
	0-25	Blank
2	0-25	Open Forest
	25-50	Blank
3	25-50	Open Forest
	>50	Scrub & blank
4	0-25	Dense Forest
	>50	Open Forest
5	25-50	Dense Forest
	>50	Dense Forest





Map Showing Proposed Percolation Tanks in Medchal Division



DIVISION	RANGE	Proposed PTs (Priority Wise)					Proposed PTs	Proposed Large PTs
		I	II	III	IV	V		
Medchal	Dulapally	24	6	2			32	2
	Jltc Shamirpet	13	12		12	1	38	0
	Keesara	28	4		2		34	0
	Uppal	16	1				17	0
Medchal Total		81	23	2	14	1	121	2

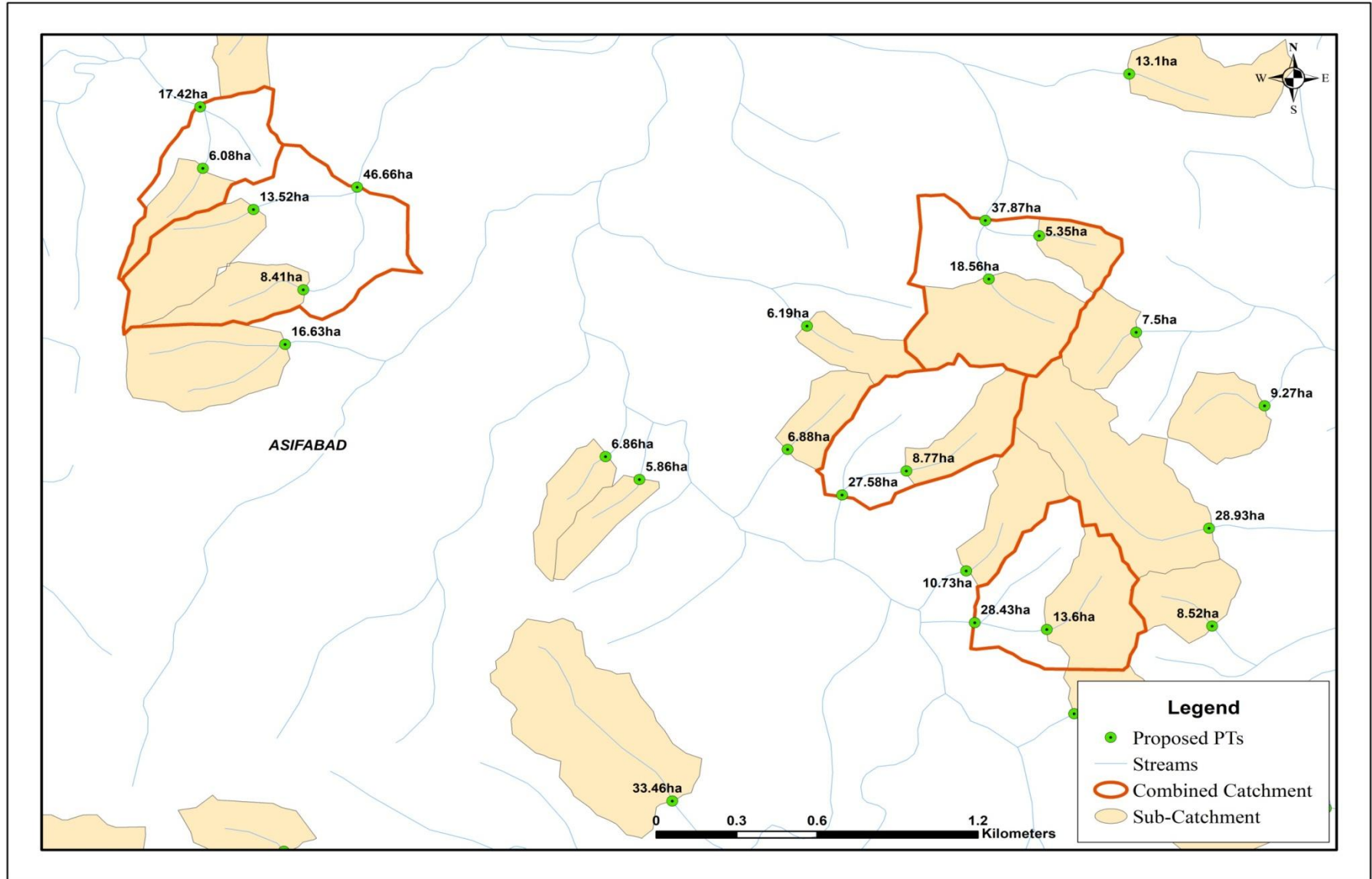
- Legend**
- Proposed Large PTs
 - Proposed PTs
 - Existing CD/PTs
 - Streams
 - WB
 - Forest Boundary
 - Range Boundary
 - Division Boundary



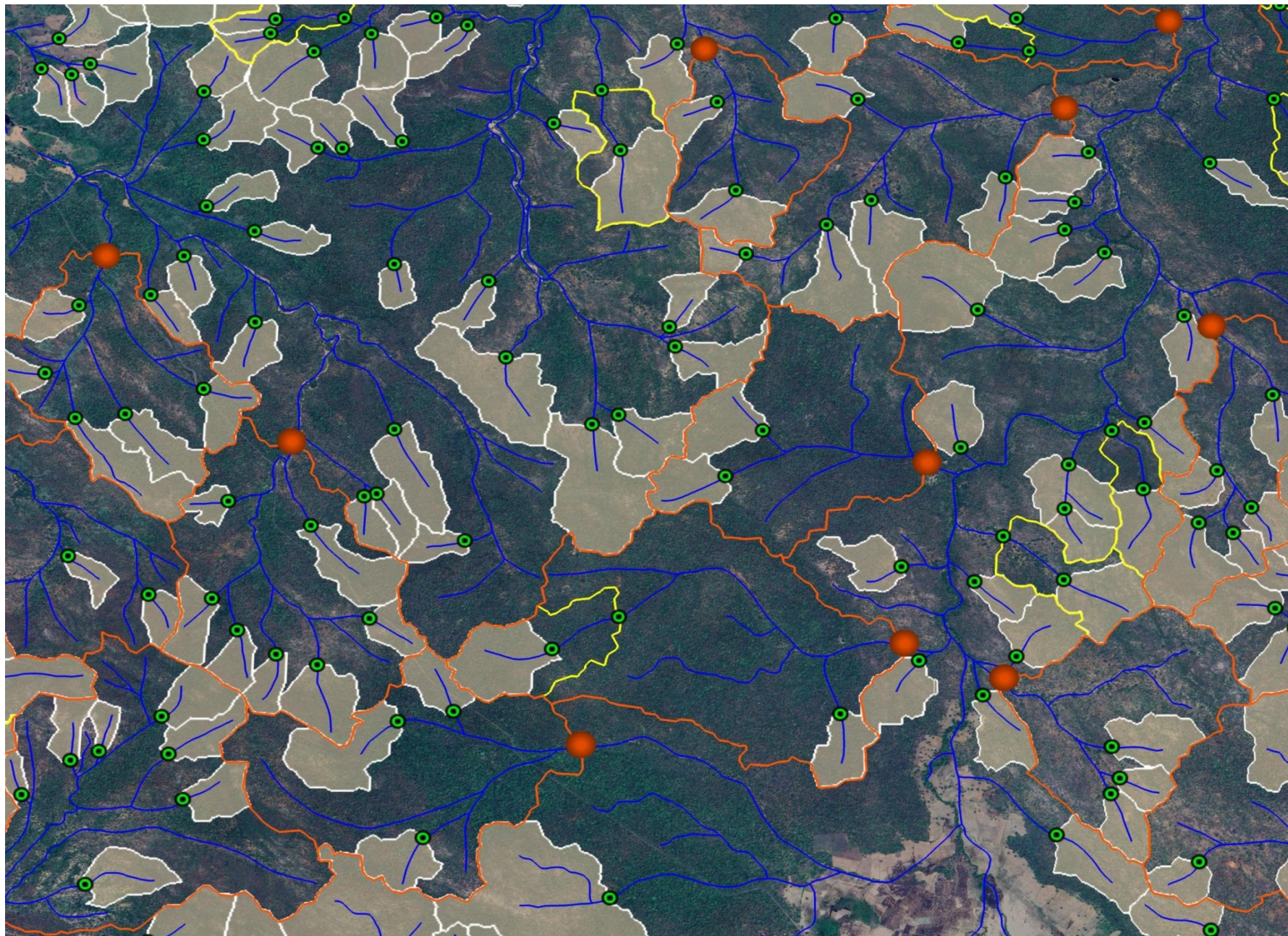
78°20'0"E 78°25'0"E 78°30'0"E 78°35'0"E 78°40'0"E 78°45'0"E

17°15'0"N 17°20'0"N 17°25'0"N 17°30'0"N 17°35'0"N 17°40'0"N

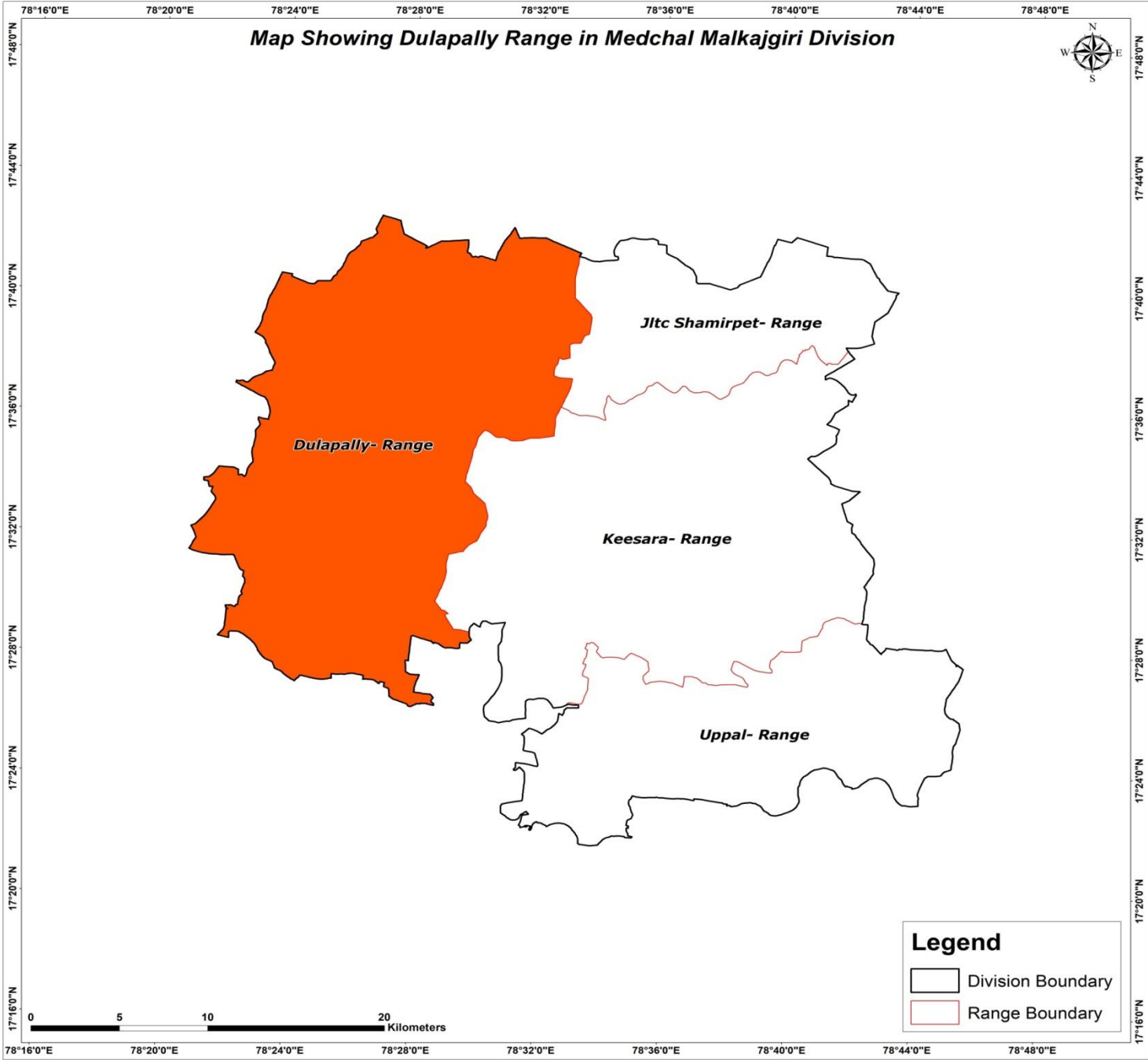
CATCHMENT AREA



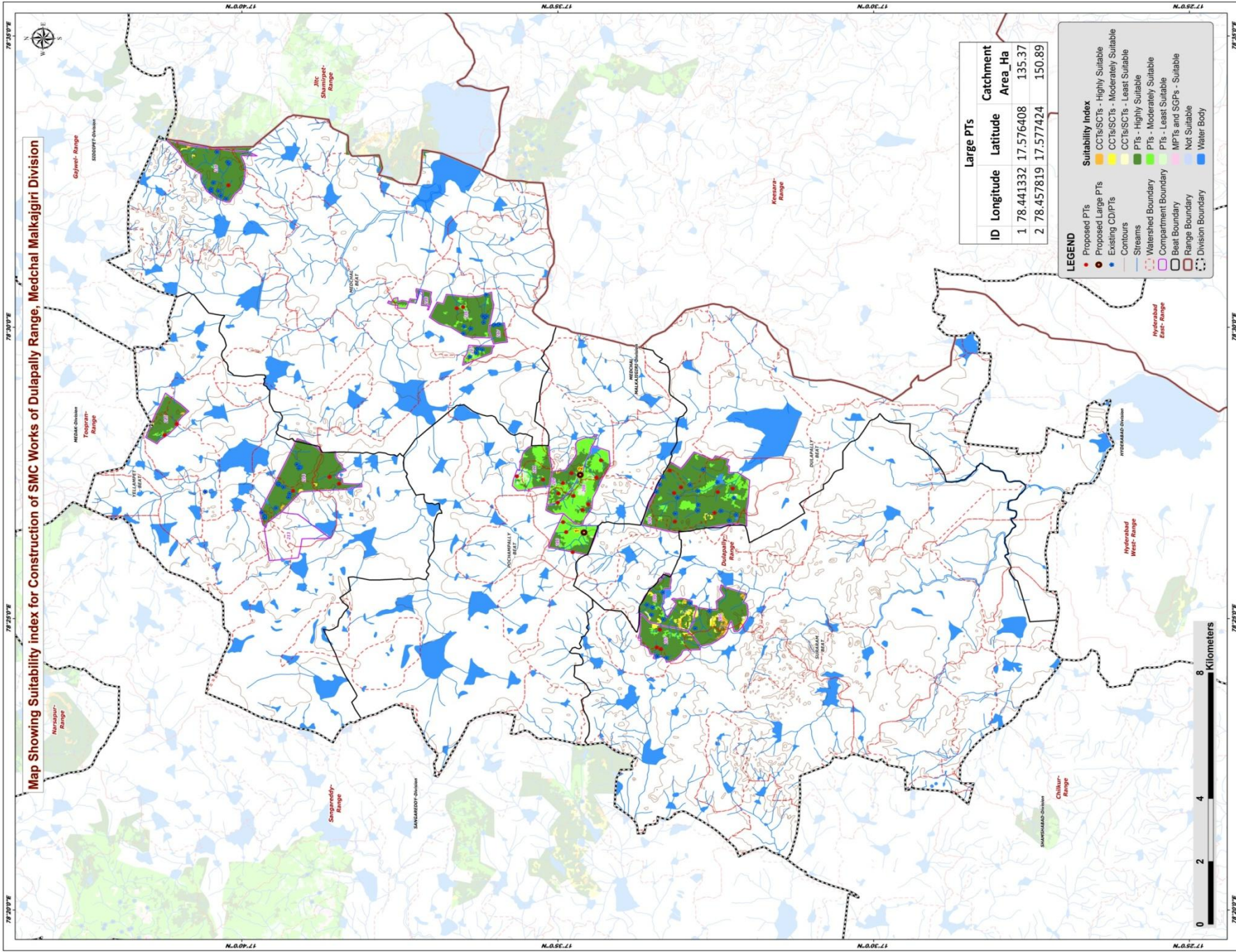
Sample Catchment Map



Map Showing Dulapally Range in Medchal Malkajgiri Division



Map Showing Suitability Index for Construction of SMC Works of Dulapally Range, Medchal Malkajgiri Division



Large PTs		Catchment	
ID	Longitude	Latitude	Area_Ha
1	78.441332	17.576408	135.37
2	78.457819	17.577424	150.89

LEGEND

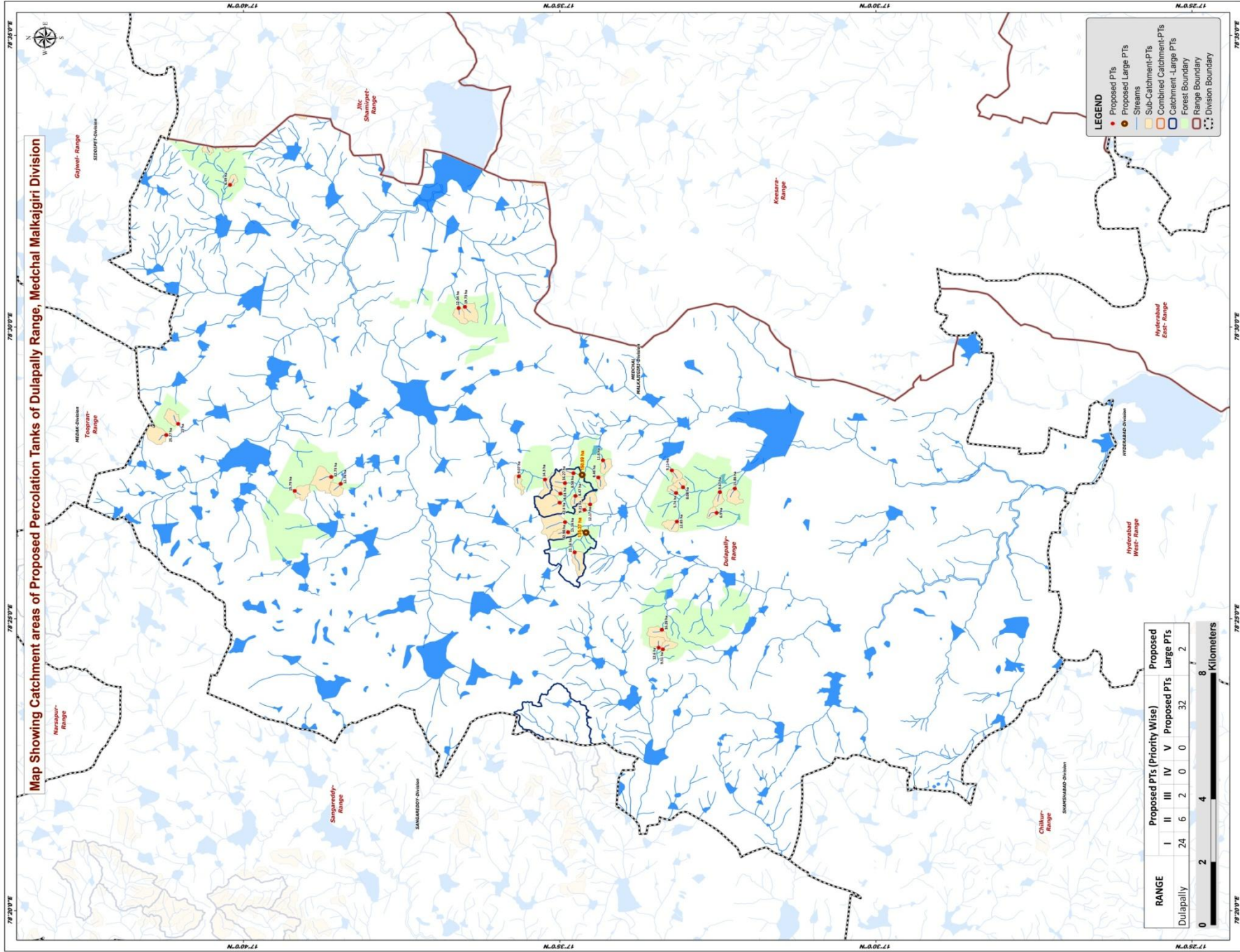
- Proposed PTs (Red dot)
- Existing CDPTs (Black dot)
- Streams (Blue line)
- Contours (Brown line)
- Watershed Boundary (Dashed black line)
- Compartment Boundary (Dashed red line)
- Range Boundary (Dashed black line)
- Division Boundary (Dotted black line)
- Water Body (Blue area)

Suitability Index

- CC's/SC's - Highly Suitable (Dark Green)
- CC's/SC's - Moderately Suitable (Light Green)
- CC's/SC's - Least Suitable (Yellow)
- PTs - Highly Suitable (Dark Green)
- PTs - Moderately Suitable (Light Green)
- PTs - Least Suitable (Yellow)
- MPT's and SGPs - Suitable (Light Green)
- MPT's and SGPs - Not Suitable (White)
- Water Body (Blue area)



Map Showing Catchment areas of Proposed Percolation Tanks of Dulapally Range, Medchal Malkajgiri Division



- LEGEND**
- Proposed PTs
 - Sub-Catchment-PTs
 - Combined Catchment-PTs
 - Catchment - Large PTs
 - Streams
 - Forest Boundary
 - Range Boundary
 - - - Division Boundary

RANGE	Proposed PTs (Priority Wise)				
	I	II	III	IV	V
Dulapally	24	6	2	0	0
				32	2



Beat wise Abstract of Proposed PT's – Dulapally Range

S. No.	Beat	Proposed PT's
1	DULAPALLY	7
2	MEDCHAL	3
3	POCHAMPALLY	14
4	SURARAM	3
5	YELLAMPET	5
	Total	32

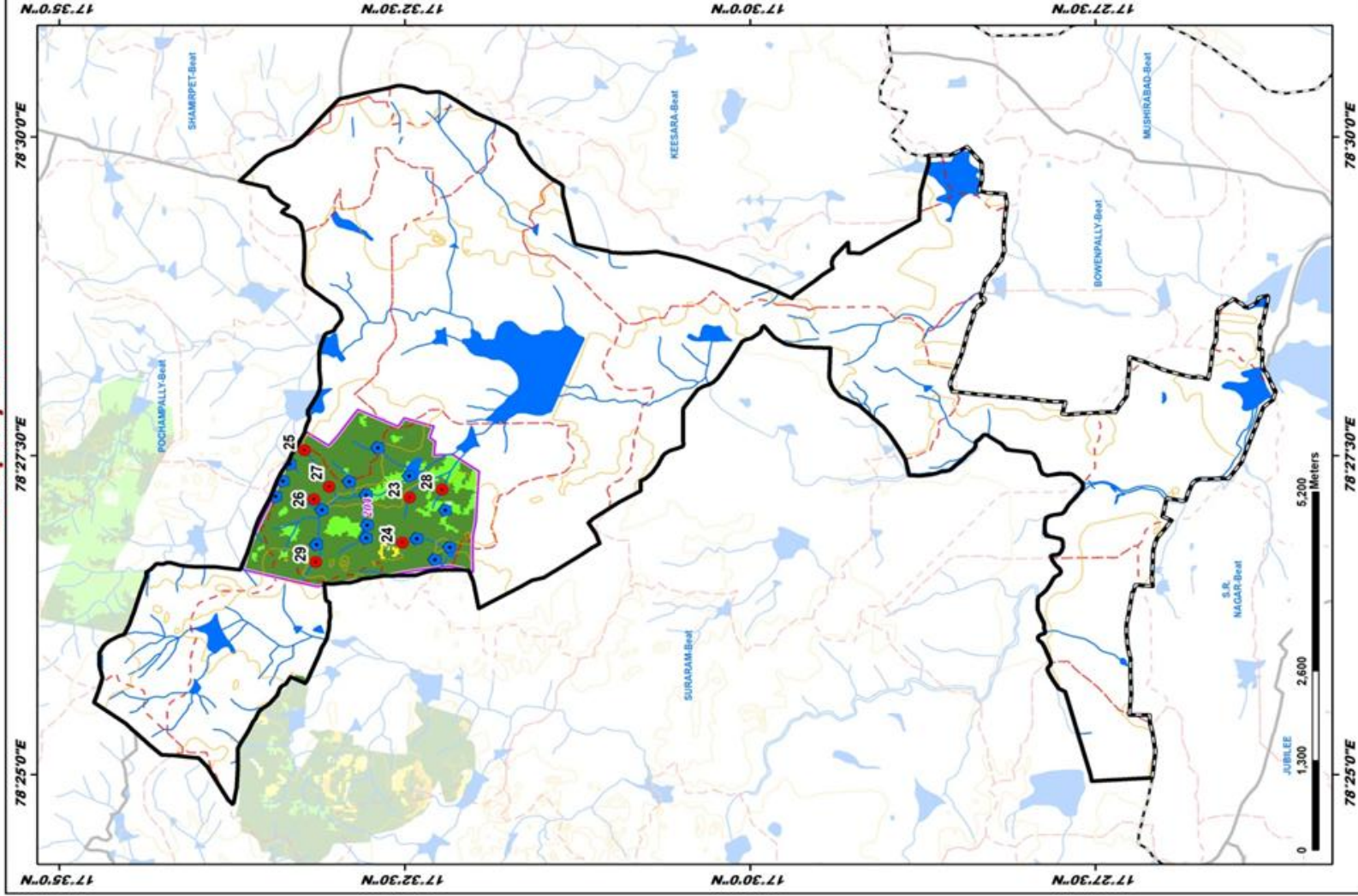
List of Proposed PTs – Dulapally Range

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
1	17.670240	78.540651	6.49	I	MEDCHAL
2	17.609956	78.505472	12.34	I	MEDCHAL
3	17.608323	78.505816	19.73	I	MEDCHAL
4	17.653201	78.453240	15.79	I	YELLAMPET
5	17.641076	78.455296	12.76	I	YELLAMPET
6	17.683929	78.472392	15.00	I	YELLAMPET
7	17.687047	78.469224	25.27	II	YELLAMPET
8	17.643557	78.457240	32.73	II	YELLAMPET
9	17.583129	78.452496	8.01	I	POCHAMPALLY
10	17.573131	78.457075	8.48	I	POCHAMPALLY
11	17.571920	78.461981	11.60	I	POCHAMPALLY
12	17.587206	78.456502	14.30	I	POCHAMPALLY
13	17.579390	78.435717	21.16	I	POCHAMPALLY
14	17.581961	78.455478	16.27	I	POCHAMPALLY
15	17.579706	78.458307	8.58	I	POCHAMPALLY
16	17.575304	78.449394	12.17	I	POCHAMPALLY
17	17.576797	78.447840	9.21	II	POCHAMPALLY
18	17.581129	78.441468	15.14	II	POCHAMPALLY
19	17.579189	78.451807	8.47	II	POCHAMPALLY
20	17.594086	78.457421	9.07	II	POCHAMPALLY
21	17.583352	78.449896	42.40	III	POCHAMPALLY
22	17.581919	78.444318	32.98	III	POCHAMPALLY
23	17.541108	78.452922	9.67	I	DULAPALLY
24	17.541952	78.446983	6.90	I	DULAPALLY
25	17.553786	78.459102	9.11	I	DULAPALLY
26	17.552644	78.452646	5.74	I	DULAPALLY
27	17.550814	78.454300	8.08	I	DULAPALLY
28	17.537170	78.453928	15.86	I	DULAPALLY
29	17.552424	78.444481	12.85	I	DULAPALLY
30	17.556139	78.407996	9.51	I	SURARAM
31	17.557239	78.408480	12.60	I	SURARAM
32	17.556399	78.413609	16.26	I	SURARAM

Map Showing Suitability Index for Construction of SMC Works of Dulapally Beat



Division : Medchal
Range : Dulapally



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
23	17.541108	78.432302	9.67	1
24	17.541952	78.446983	6.90	1
25	17.533796	78.459103	9.11	1
26	17.532644	78.432646	5.74	1
27	17.530614	78.454300	8.08	1
28	17.537170	78.433928	15.86	1
29	17.532624	78.444481	12.85	1

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

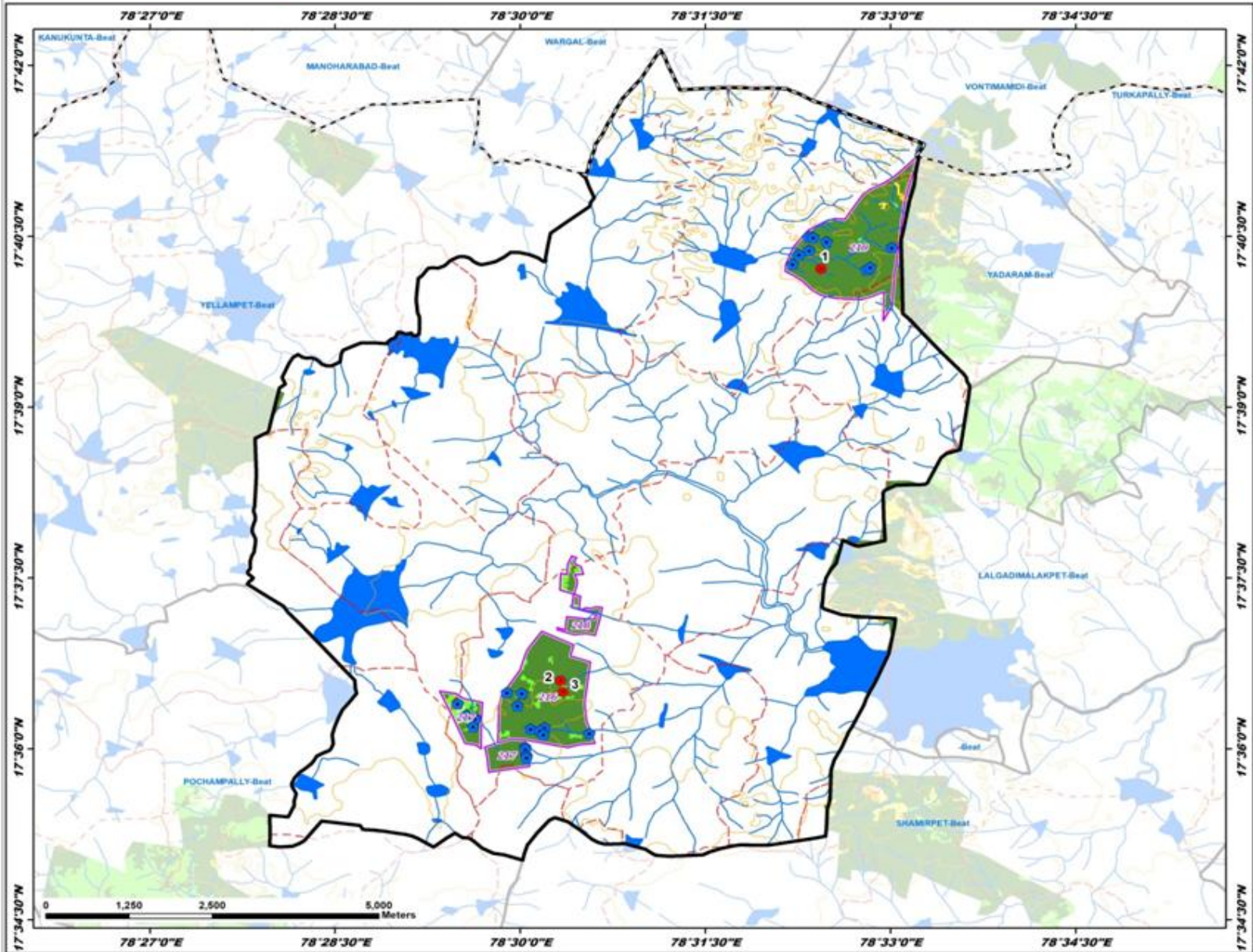
Suitability Index

- CC/Ts/SCTs - Highly Suitable
- CC/Ts/SCTs - Moderately Suitable
- CC/Ts/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SCPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Medchal Beat



Division : Medchal
Range : Dulapally



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
1	17.670240	78.540651	6.49	I
2	17.609956	78.505472	12.54	I
3	17.608323	78.505816	19.73	I

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

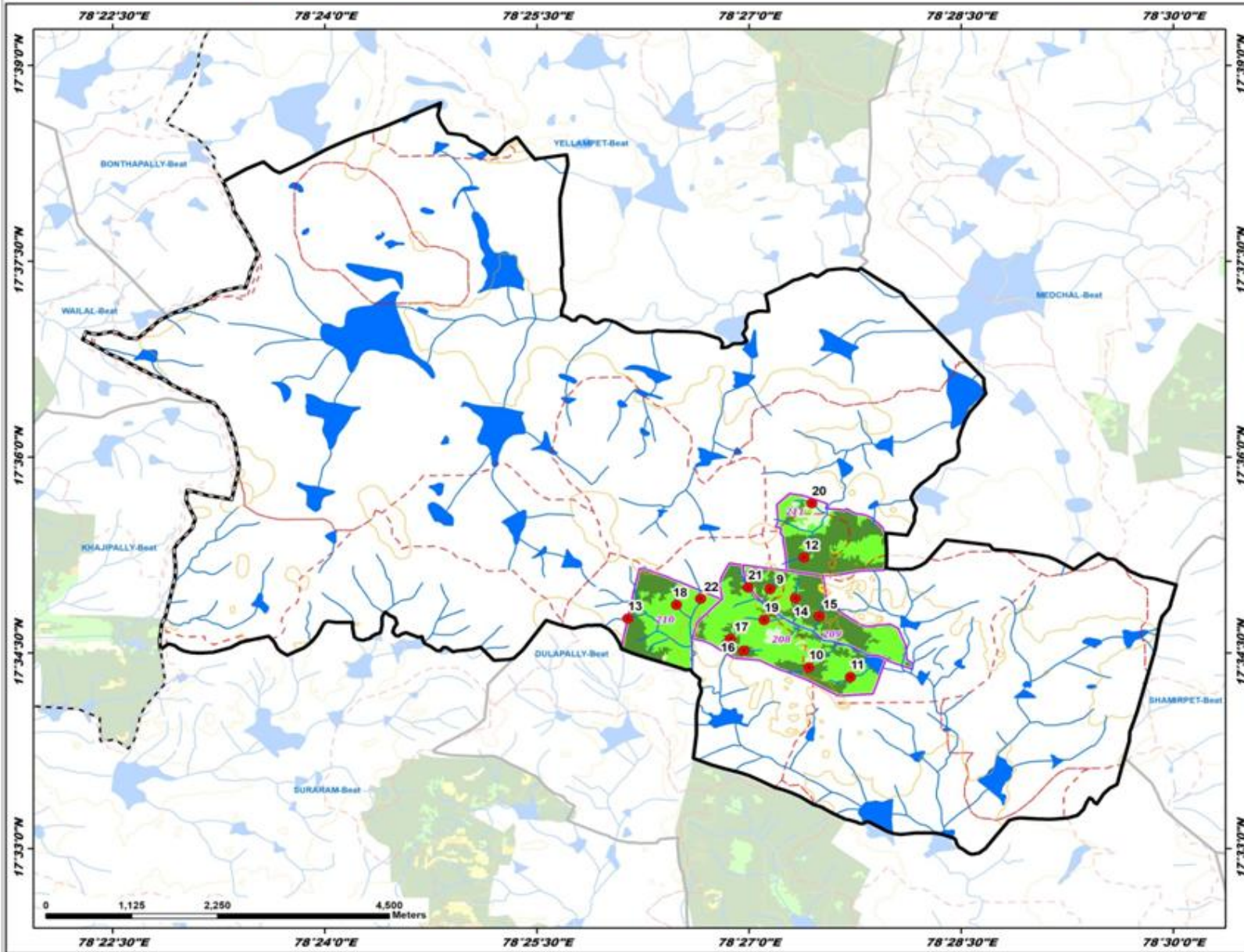
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Pochampally Beat



Division : Medchal
Range : Dulapally



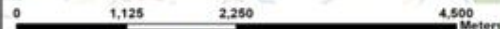
ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
9	17.583129	78.452496	8.01	I
10	17.579181	78.457075	8.48	I
11	17.571920	78.461981	11.60	I
12	17.587206	78.456502	14.30	I
13	17.579380	78.435717	21.16	I
14	17.581961	78.455478	16.27	I
15	17.579706	78.458307	8.58	I
16	17.575304	78.449394	12.17	I
17	17.576797	78.447640	9.21	II
18	17.581129	78.441468	15.14	II
19	17.579189	78.451807	8.47	II
20	17.594086	78.457421	9.07	II
21	17.583352	78.449896	42.40	III
22	17.581919	78.444318	32.98	III

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- Compartment Boundary
- Beat Boundary
- - - Division Boundary

Suitability Index

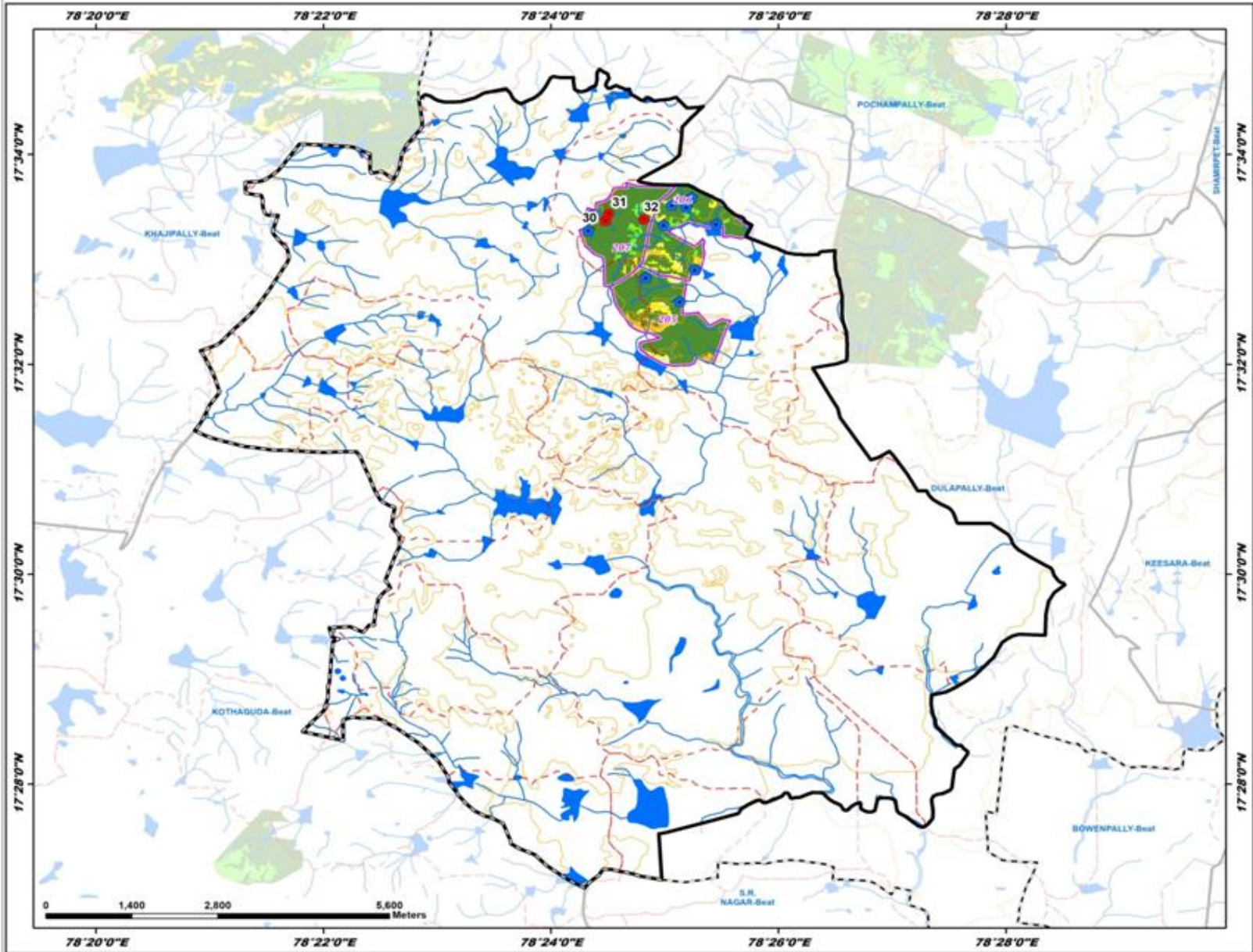
- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body



Map Showing Suitability Index for Construction of SMC Works of Suraram Beat



Division : Medchal
Range : Dulapally



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
30	17.556139	78.407996	9.51	I
31	17.557239	78.408480	12.60	I
32	17.556399	78.413609	16.26	I

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

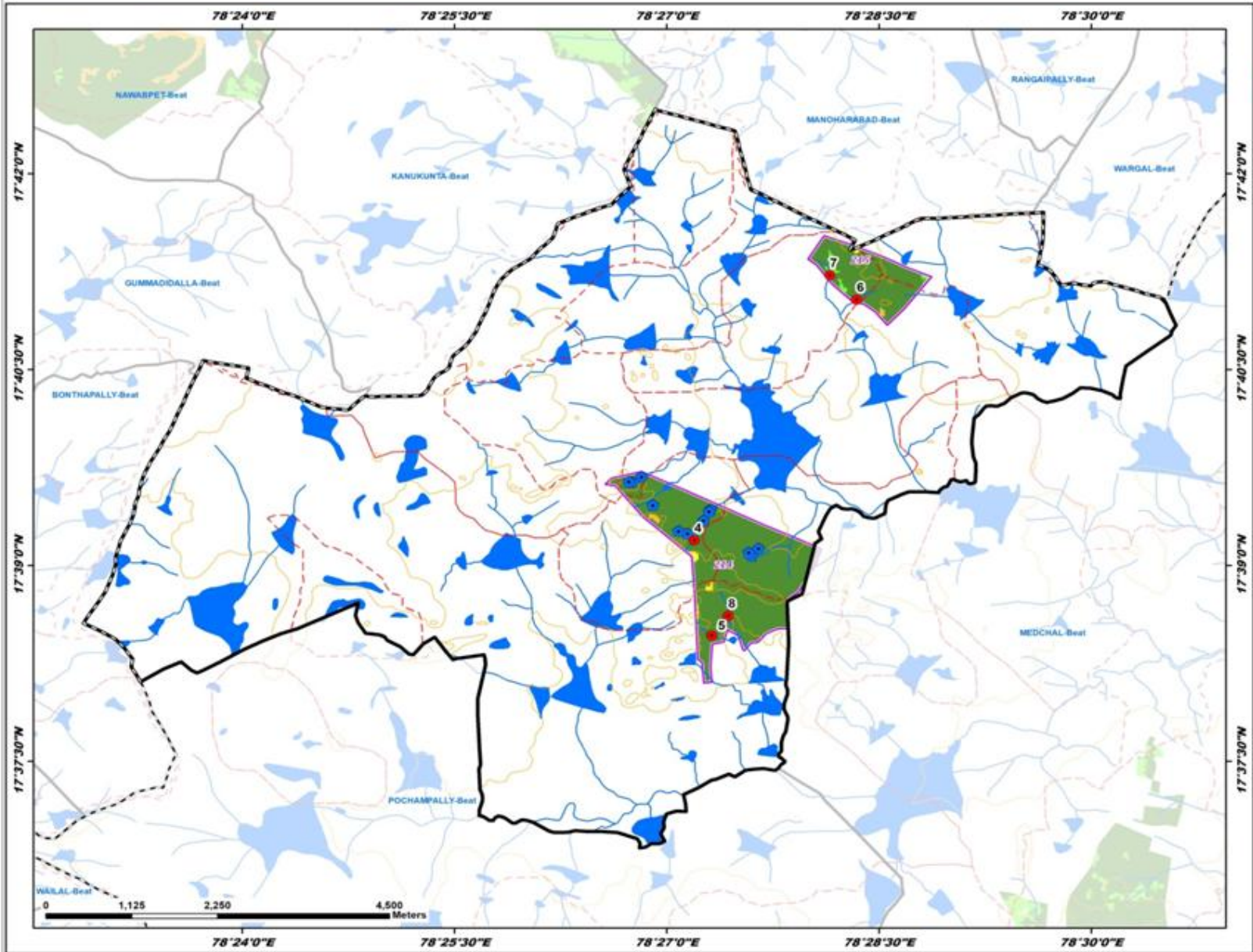
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Yellampet Beat



Division : Medchal
Range : Dulapally



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
4	17.653201	78.453240	15.79	I
5	17.641076	78.455296	12.76	I
6	17.669929	78.472392	15.00	I
7	17.667047	78.469224	25.27	II
8	17.648557	78.457240	32.73	II

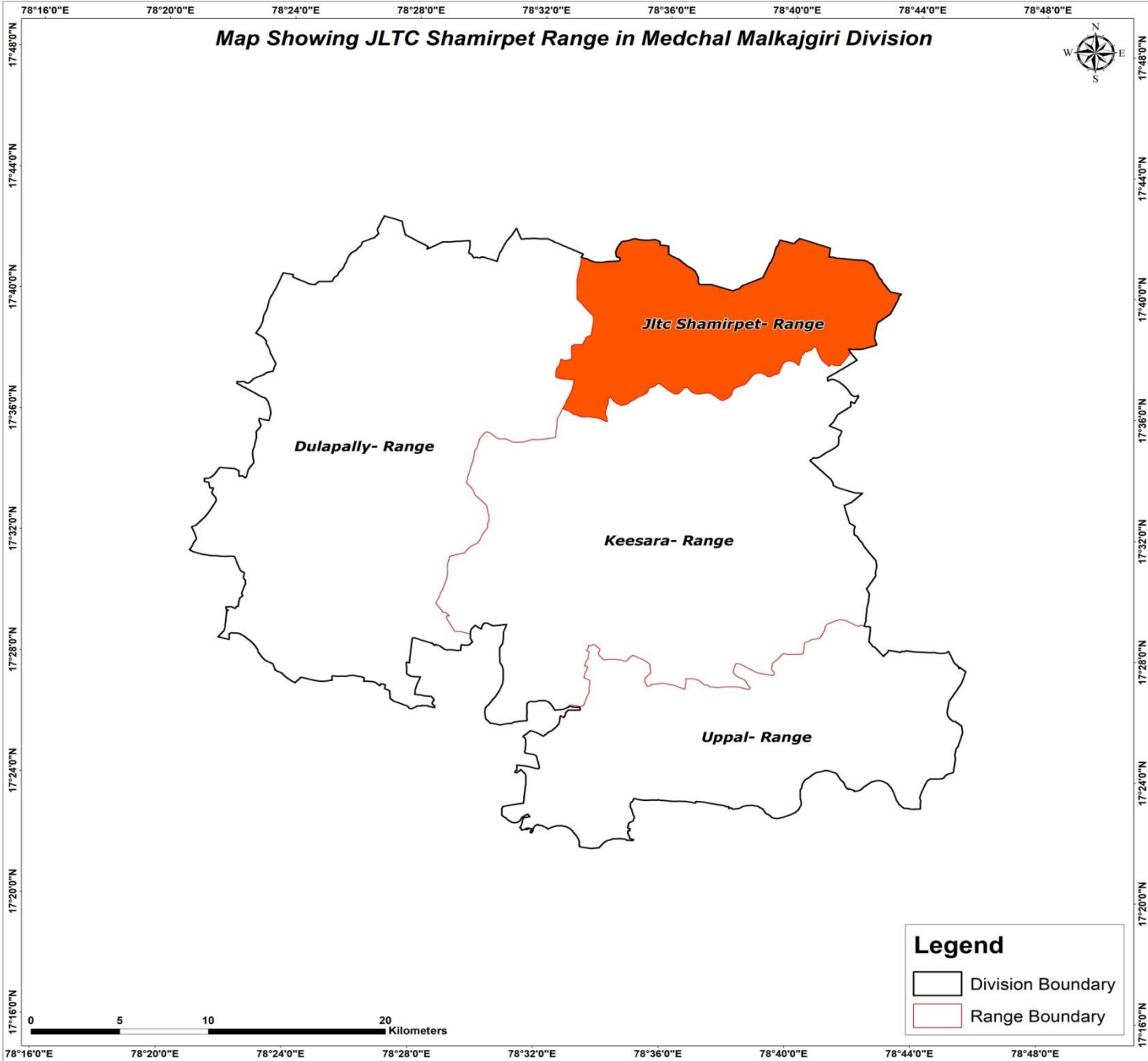
LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing JLTC Shamirpet Range in Medchal Malkajgiri Division

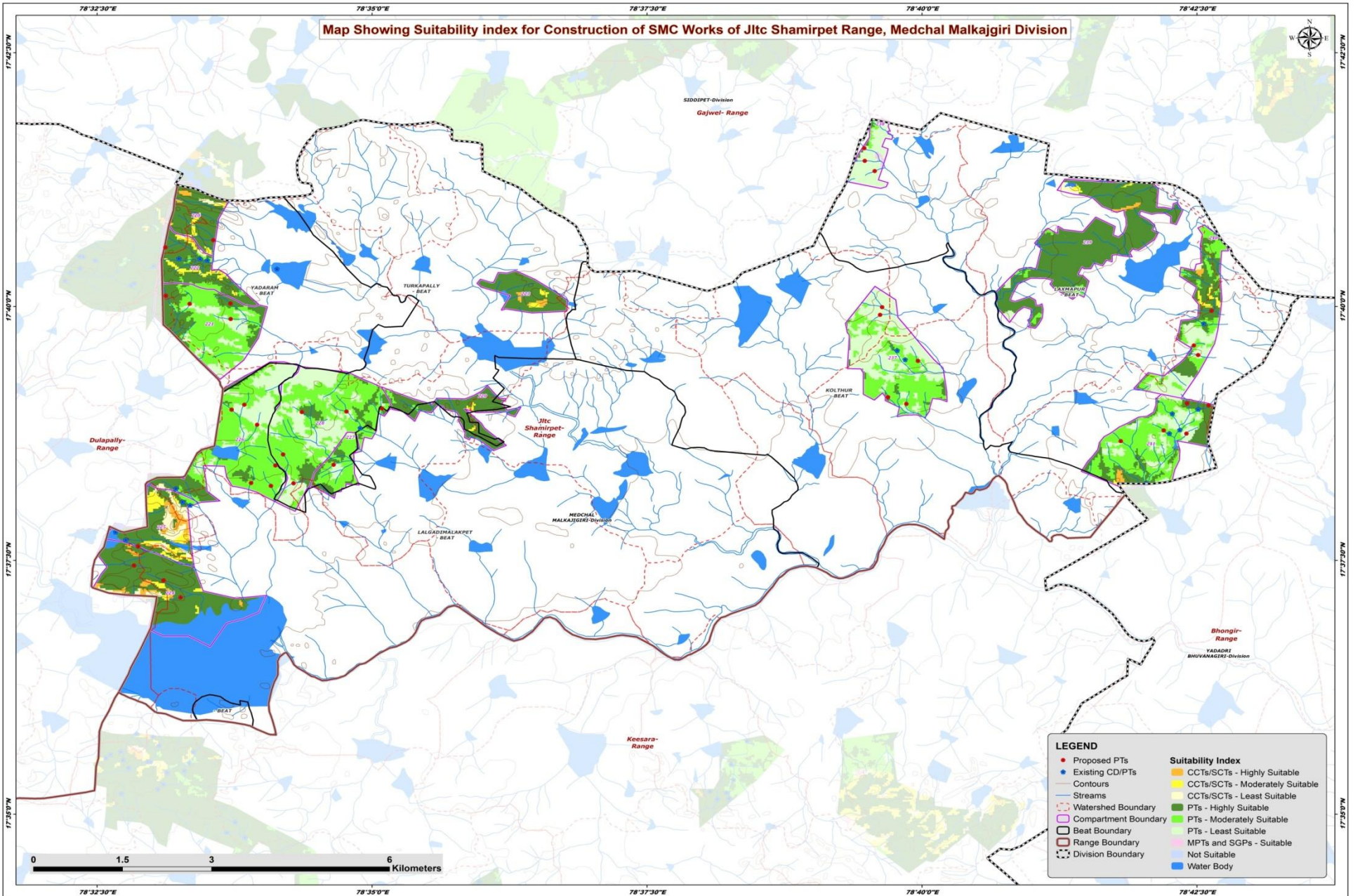


0 5 10 20 Kilometers

Legend

- Division Boundary
- Range Boundary

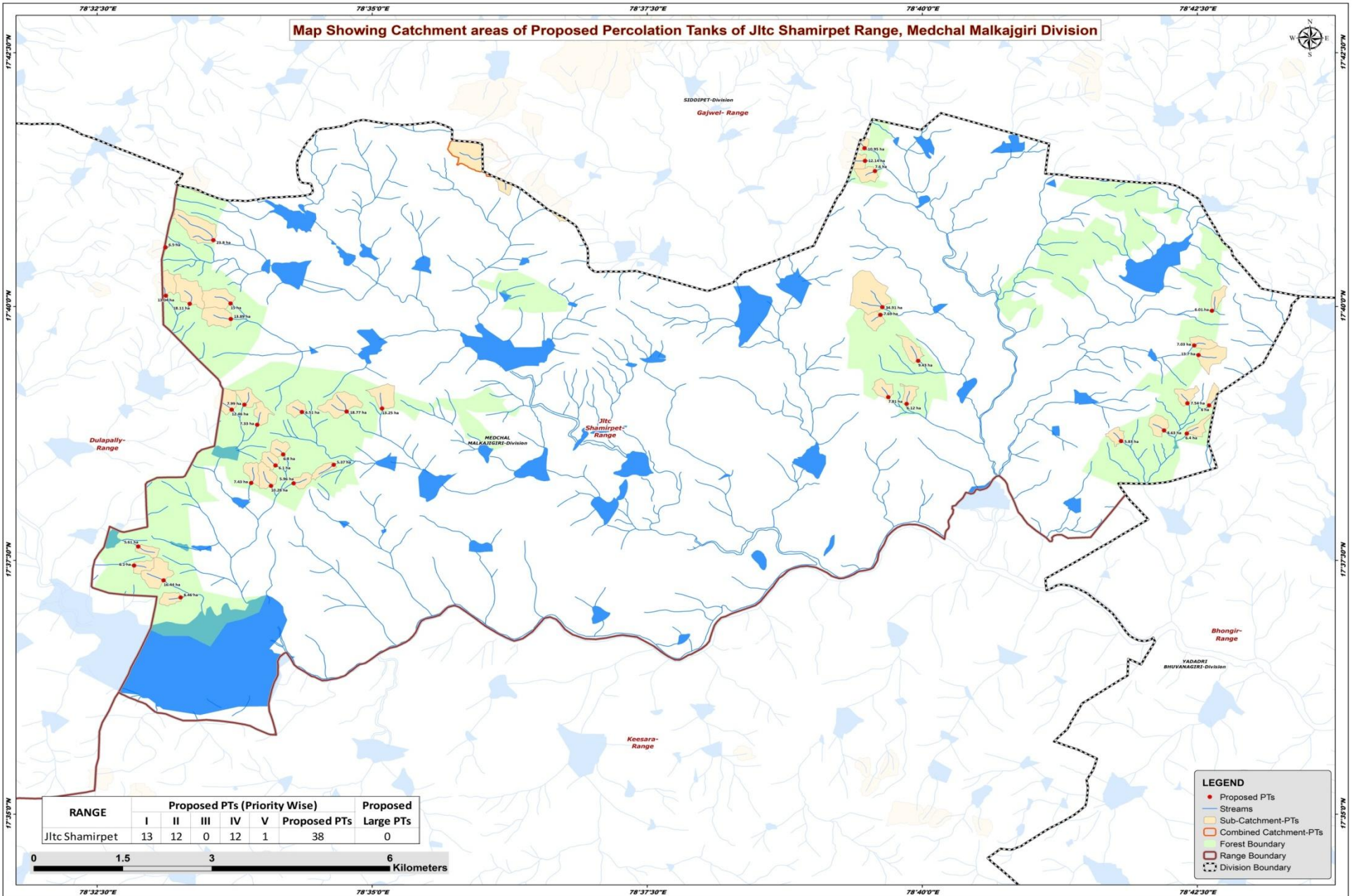
Map Showing Suitability index for Construction of SMC Works of Jltc Shamirpet Range, Medchal Malkajgiri Division



0 1.5 3 6 Kilometers



Map Showing Catchment areas of Proposed Percolation Tanks of Jltc Shamirpet Range, Medchal Malkajgiri Division



Beat wise Abstract of Proposed PT's – JLTC Shankarampet Range

S. No.	Beat	Proposed PT's
1	KOLTHUR	5
2	LALGADIMALAKPET	11
3	LAXMAPUR	11
4	TURKAPALLY	5
5	YADARAM	6
	Total	38

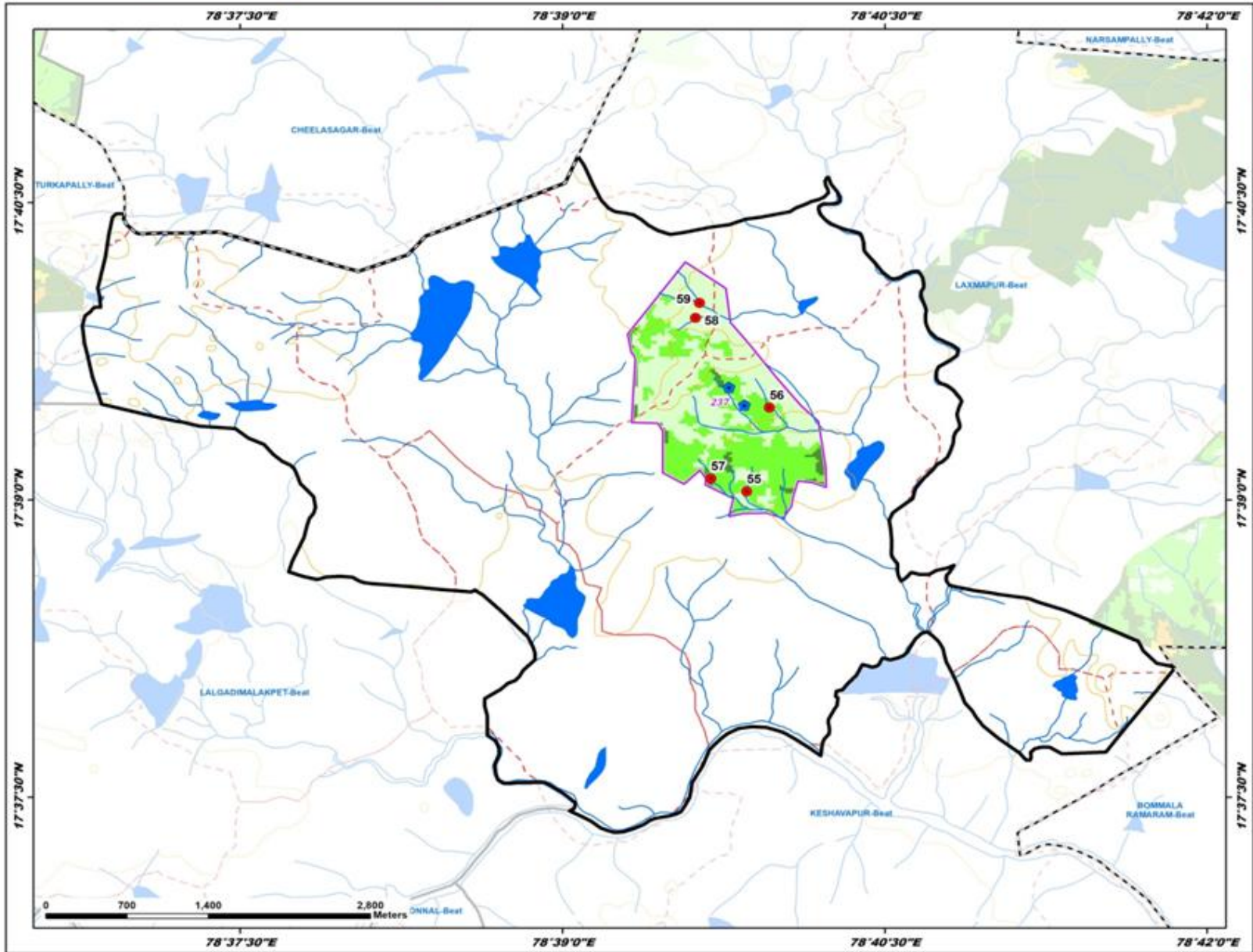
List of Proposed PTs – JLTC Shamirpet Range

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
33	17.627295	78.547881	5.61	I	LALGADIMALAKPET
34	17.624173	78.547261	6.10	I	LALGADIMALAKPET
35	17.618928	78.554330	6.46	I	LALGADIMALAKPET
36	17.621720	78.551739	16.44	I	LALGADIMALAKPET
37	17.640598	78.568691	6.10	II	LALGADIMALAKPET
38	17.637715	78.565002	7.43	II	LALGADIMALAKPET
39	17.650567	78.563965	7.99	II	LALGADIMALAKPET
40	17.637245	78.568000	10.28	II	LALGADIMALAKPET
41	17.649750	78.562048	12.46	II	LALGADIMALAKPET
42	17.647282	78.565922	7.33	IV	LALGADIMALAKPET
43	17.649939	78.584838	13.25	IV	LALGADIMALAKPET
44	17.649368	78.572697	6.51	I	TURKAPALLY
45	17.642403	78.569854	6.80	II	TURKAPALLY
46	17.637668	78.571427	5.96	IV	TURKAPALLY
47	17.640701	78.577510	5.37	IV	TURKAPALLY
48	17.649449	78.579470	18.77	IV	TURKAPALLY
49	17.668463	78.552074	13.04	I	YADARAM
50	17.676394	78.552013	6.50	I	YADARAM
51	17.667182	78.561876	15.00	I	YADARAM
52	17.677586	78.559264	23.80	I	YADARAM
53	17.667130	78.555693	18.11	II	YADARAM
54	17.664642	78.561920	13.89	IV	YADARAM
55	17.650708	78.664308	6.12	II	KOLTHUR
56	17.657769	78.666060	9.43	II	KOLTHUR
57	17.651800	78.661528	7.81	II	KOLTHUR
58	17.665315	78.660339	7.69	IV	KOLTHUR
59	17.666568	78.660642	34.91	V	KOLTHUR
60	17.692680	78.657924	10.95	I	LAXMAPUR
61	17.650444	78.710121	6.00	I	LAXMAPUR
62	17.665986	78.710575	6.01	I	LAXMAPUR
63	17.650799	78.706848	7.54	I	LAXMAPUR
64	17.646334	78.703308	8.63	II	LAXMAPUR
65	17.644594	78.696807	5.83	II	LAXMAPUR
66	17.660302	78.707874	7.03	IV	LAXMAPUR
67	17.645823	78.706765	6.40	IV	LAXMAPUR
68	17.658718	78.708527	13.70	IV	LAXMAPUR
69	17.688928	78.659519	7.60	IV	LAXMAPUR
70	17.690601	78.658006	12.14	IV	LAXMAPUR

Map Showing Suitability Index for Construction of SMC Works of Kolthur Beat



Division : Medchal
Range : JLTC Shamirpet



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
55	17.650708	78.664308	6.12	II
56	17.657769	78.666060	9.43	II
57	17.651800	78.661528	7.81	II
58	17.665315	78.660339	7.69	IV
59	17.666568	78.660642	34.91	V

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

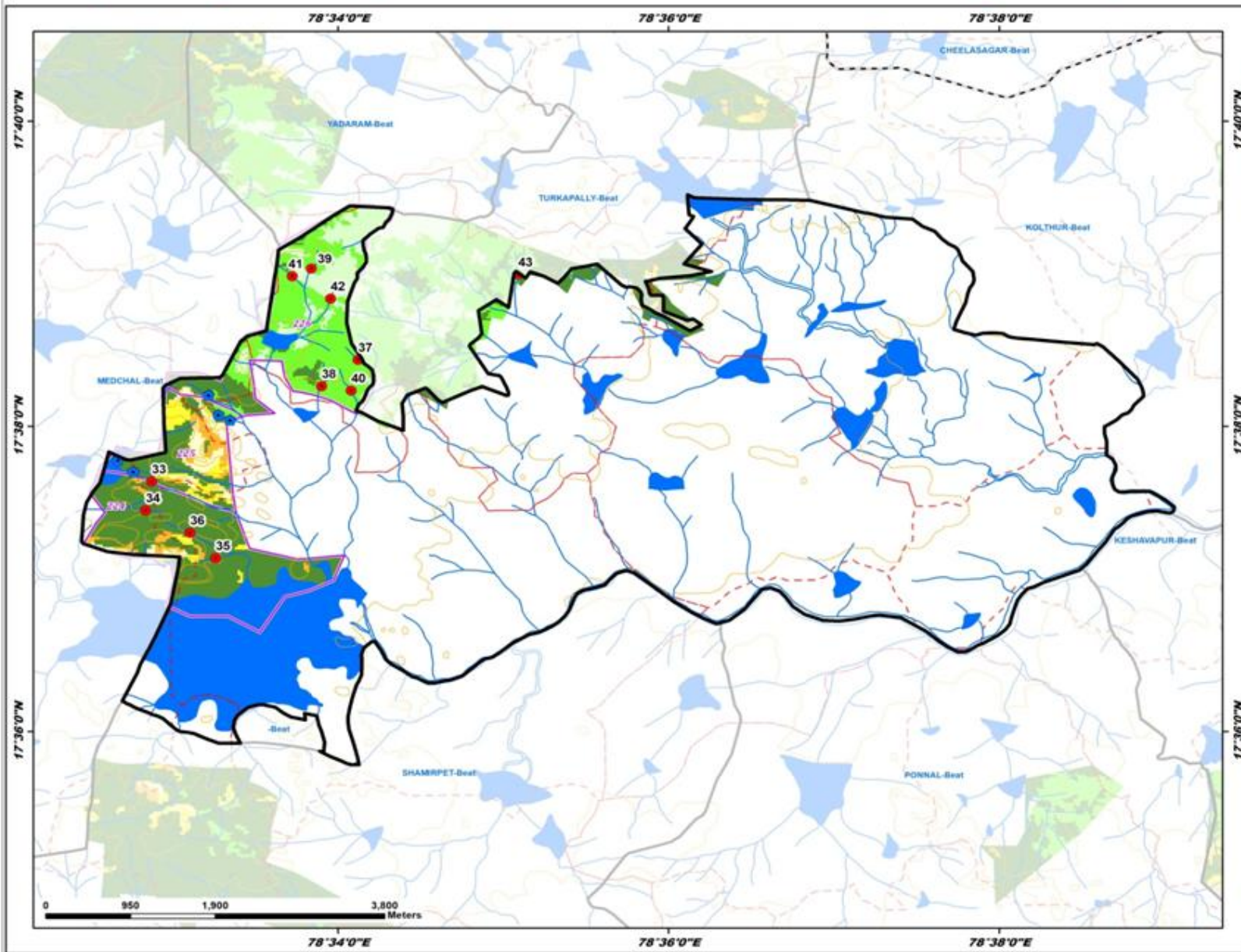
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Lalgadimalakpet Beat



Division : Medchal
Range : JLTC Shamirpet



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
33	17.627295	78.547981	5.61	I
34	17.624173	78.547261	6.10	I
35	17.618928	78.554330	6.46	I
36	17.621720	78.551739	16.44	I
37	17.640598	78.568691	6.10	II
38	17.637715	78.565002	7.43	II
39	17.650367	78.563065	7.39	II
40	17.637245	78.568000	10.28	II
41	17.649750	78.562048	12.46	II
42	17.647282	78.569522	7.33	IV
43	17.649939	78.584838	13.25	IV

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

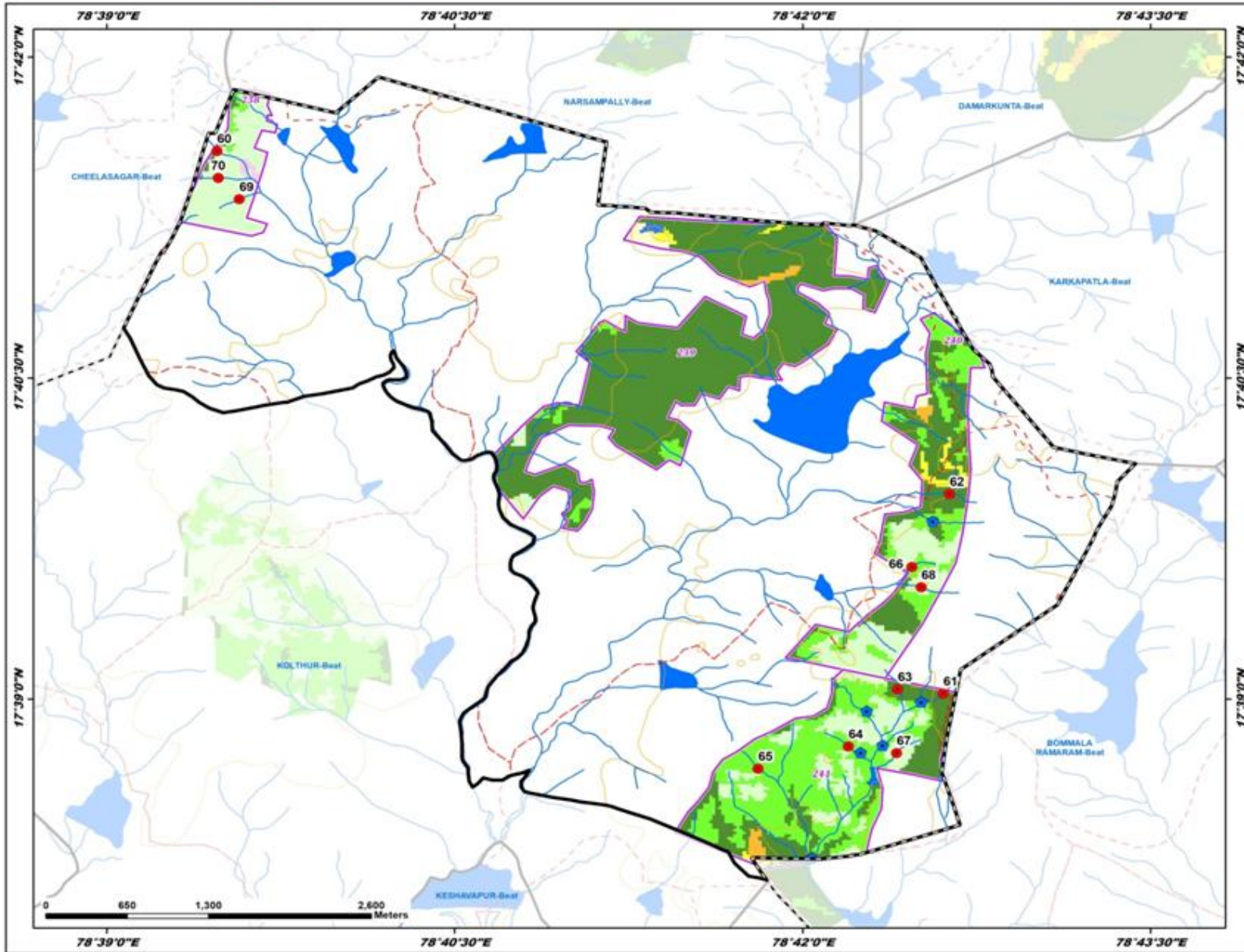
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Laxmapur Beat



Division : Medchal
Range : JLTC Shamirpet



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
60	17.692680	78.657924	10.95	I
61	17.650444	78.710121	6.00	I
62	17.665986	78.710575	6.01	I
63	17.650799	78.706846	7.54	I
64	17.646334	78.703508	8.83	II
65	17.644594	78.696807	5.83	II
66	17.660302	78.707874	7.03	IV
67	17.645823	78.706765	6.40	IV
68	17.658718	78.708527	13.70	IV
69	17.688926	78.659519	7.60	IV
70	17.690601	78.658006	12.14	IV

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

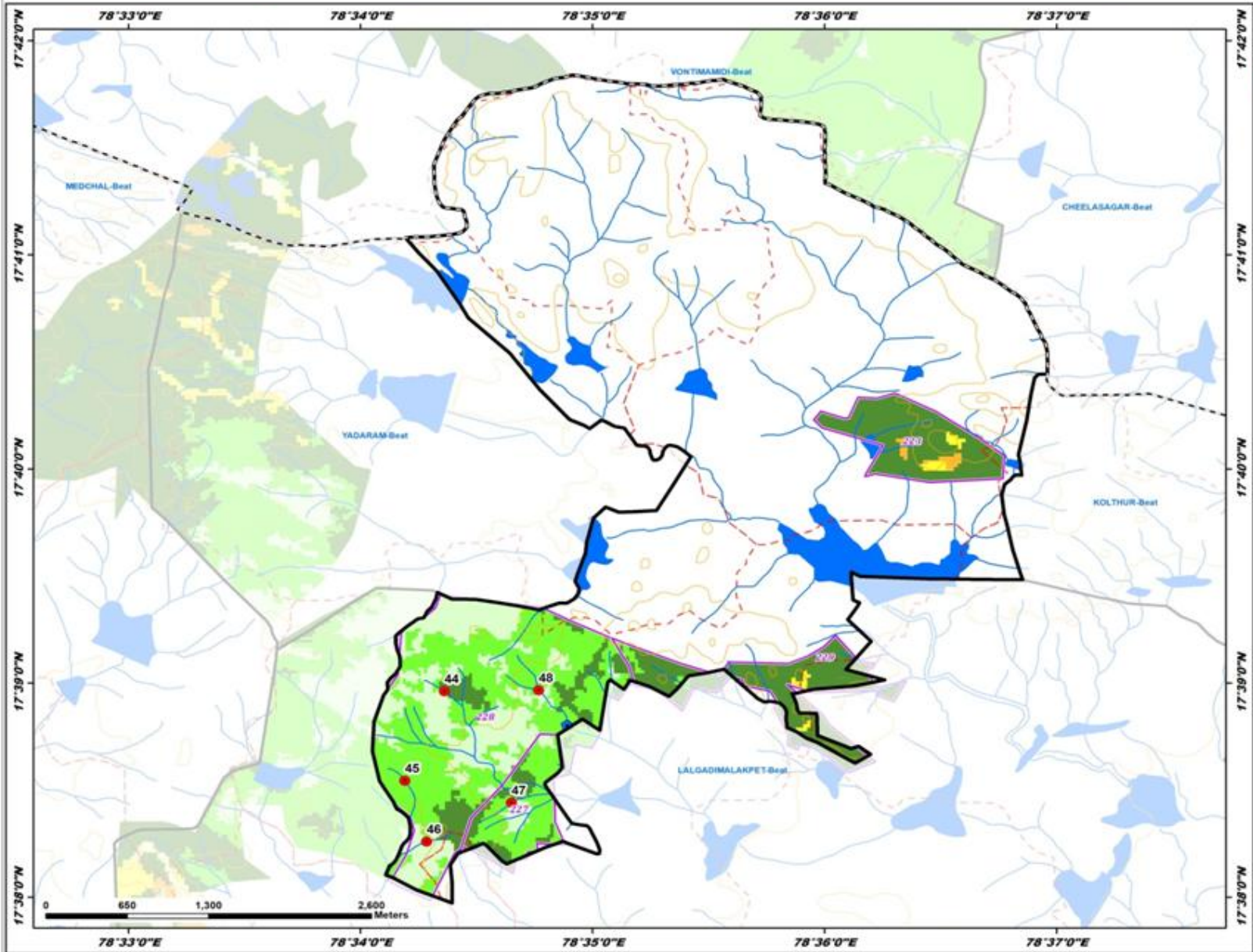
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Turkapally Beat



Division : Medchal
Range : JLTC Shamirpet



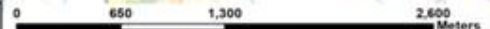
ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
44	17.649368	78.572697	6.51	I
45	17.642403	78.569854	6.80	II
46	17.637668	78.571427	5.96	IV
47	17.640701	78.577510	5.97	IV
48	17.649449	78.579470	18.77	IV

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- ▭ Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

Suitability Index

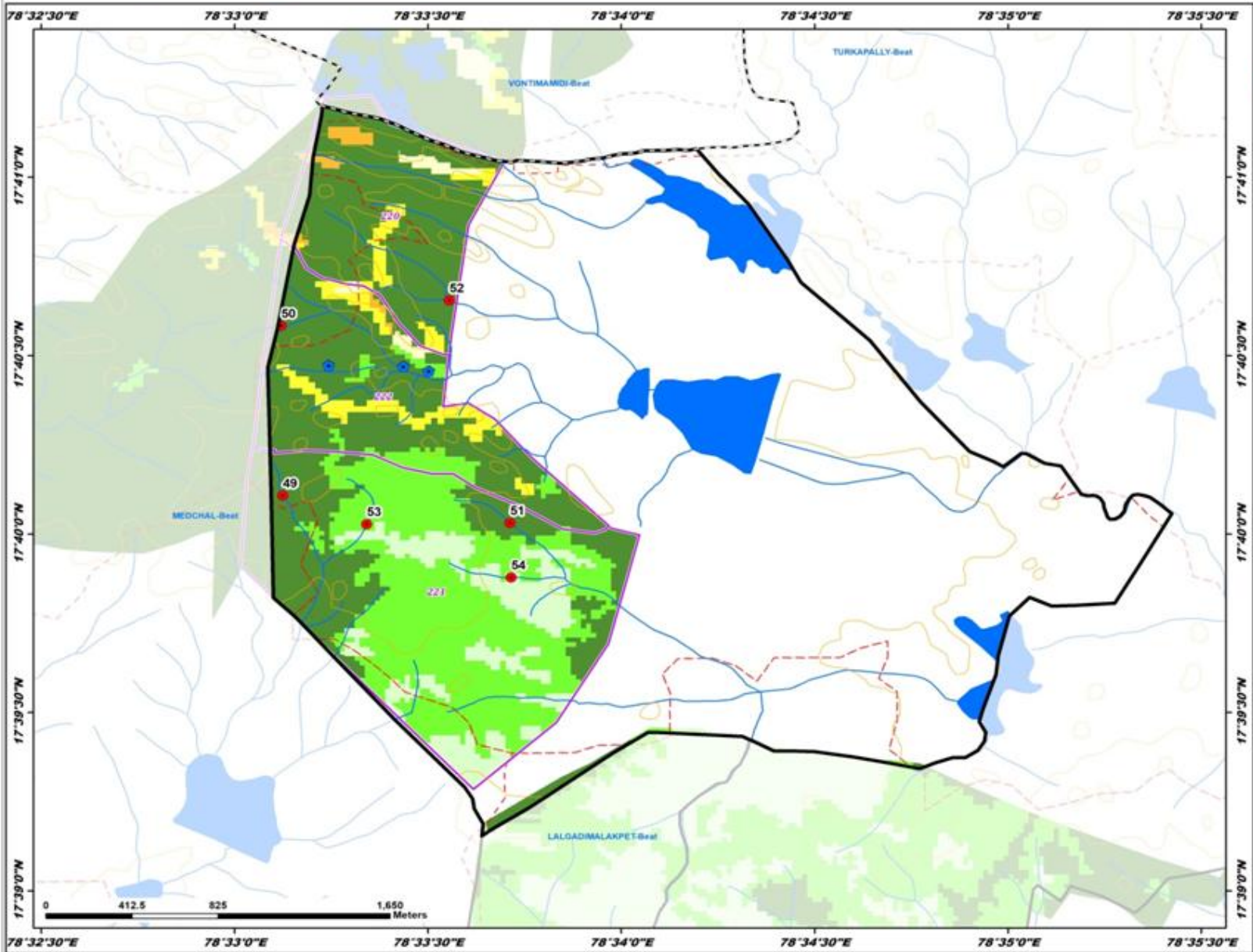
- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body



Map Showing Suitability Index for Construction of SMC Works of Yadaram Beat



Division : Medchal
Range : JLTC Shamirpet



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
49	17.668463	78.553074	13.04	I
50	17.676394	78.553013	6.50	I
51	17.667182	78.561876	15.00	I
52	17.677586	78.559264	23.80	I
53	17.667130	78.555693	18.11	II
54	17.666642	78.561920	13.89	IV

LEGEND

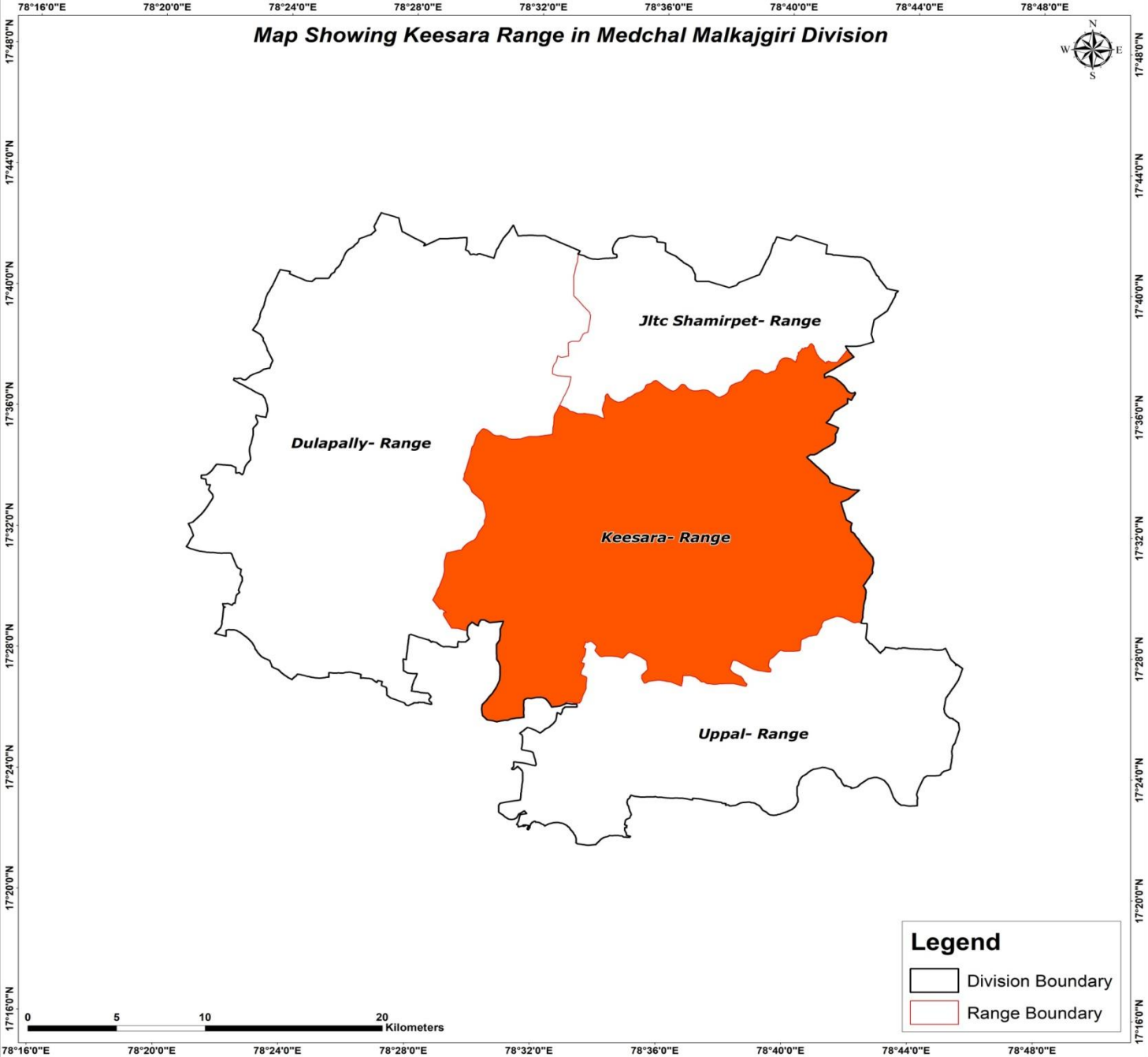
- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body



Map Showing Keesara Range in Medchal Malkajgiri Division

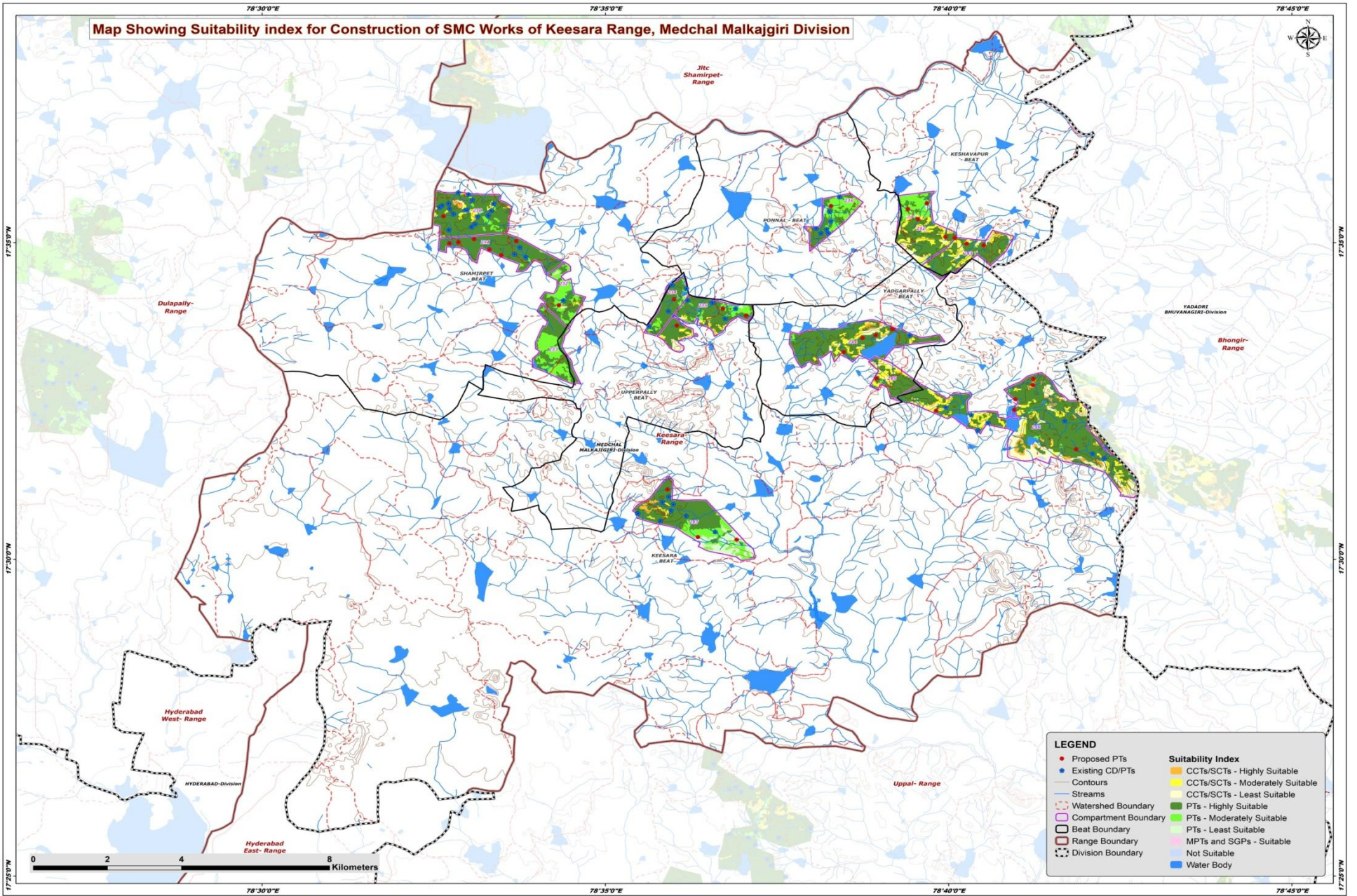


Legend

- Division Boundary
- Range Boundary

0 5 10 20 Kilometers

Map Showing Suitability index for Construction of SMC Works of Keesara Range, Medchal Malkajgiri Division

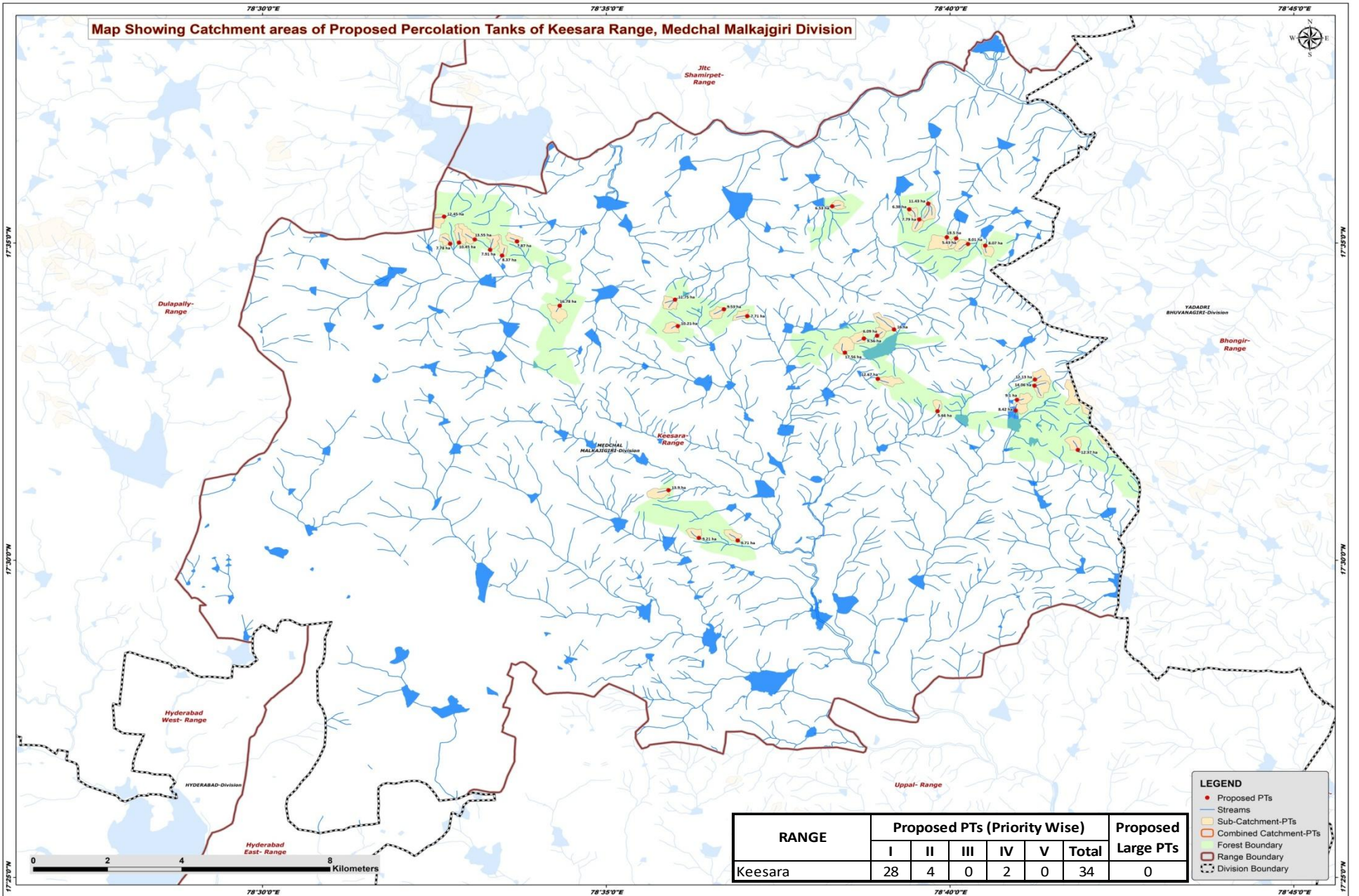


LEGEND	
●	Proposed PTs
●	Existing CD/PTs
—	Contours
—	Streams
—	Watershed Boundary
—	Compartment Boundary
—	Beat Boundary
—	Range Boundary
—	Division Boundary
■	CCTs/SCTs - Highly Suitable
■	CCTs/SCTs - Moderately Suitable
■	CCTs/SCTs - Least Suitable
■	PTs - Highly Suitable
■	PTs - Moderately Suitable
■	PTs - Least Suitable
■	MPTs and SGPs - Suitable
■	Not Suitable
■	Water Body

0 2 4 8 Kilometers



Map Showing Catchment areas of Proposed Percolation Tanks of Keesara Range, Medchal Malkajgiri Division



RANGE	Proposed PTs (Priority Wise)					Total	Proposed Large PTs
	I	II	III	IV	V		
Keesara	28	4	0	2	0	34	0

LEGEND

- Proposed PTs
- Streams
- Sub-Catchment-PTs
- Combined Catchment-PTs
- Forest Boundary
- Range Boundary
- - - Division Boundary

Beat wise Abstract of Proposed PT's – Keesara Range

S. No.	Beat	Proposed PT's
1	KEESARA	9
2	KESHAVAPUR	7
3	PONNAL	1
4	SHAMIRPET	8
5	UPPERPALLY	4
6	YADGARPALLY	5
	Total	34

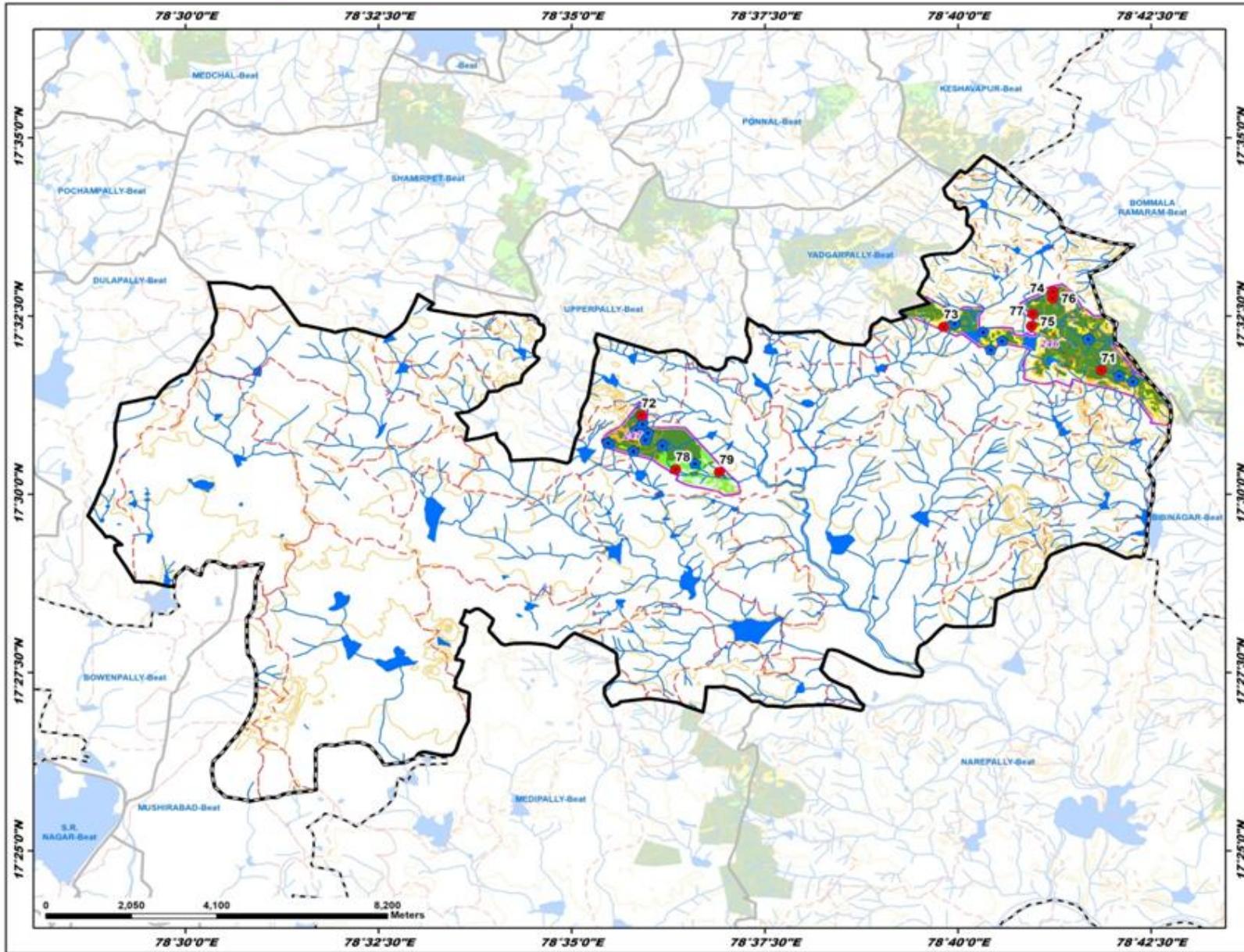
List of Proposed PTs – Keesara Range

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
71	17.528985	78.697669	12.37	I	KEESARA
72	17.518418	78.598438	13.90	I	KEESARA
73	17.539152	78.663655	5.66	I	KEESARA
74	17.547466	78.687268	12.13	I	KEESARA
75	17.539344	78.682592	8.42	I	KEESARA
76	17.545876	78.687172	14.06	I	KEESARA
77	17.542147	78.682890	9.10	I	KEESARA
78	17.505859	78.605816	9.21	IV	KEESARA
79	17.505207	78.615226	9.71	IV	KEESARA
80	17.547645	78.649197	12.67	I	YADGARPALLY
81	17.558993	78.648986	6.09	I	YADGARPALLY
82	17.558268	78.645796	9.56	I	YADGARPALLY
83	17.560619	78.653110	16.00	I	YADGARPALLY
84	17.554540	78.641195	17.56	I	YADGARPALLY
85	17.583080	78.671054	8.01	I	KESHAVAPUR
86	17.584859	78.665908	19.50	I	KESHAVAPUR
87	17.584581	78.668170	5.43	I	KESHAVAPUR
88	17.582659	78.675237	8.07	I	KESHAVAPUR
89	17.589532	78.659220	7.79	I	KESHAVAPUR
90	17.592177	78.656809	6.38	II	KESHAVAPUR
91	17.593684	78.661400	11.43	II	KESHAVAPUR
92	17.592975	78.638137	6.53	II	PONNAL
93	17.581567	78.555197	7.91	I	SHAMIRPET
94	17.590278	78.544045	12.45	I	SHAMIRPET
95	17.583451	78.547642	10.45	I	SHAMIRPET
96	17.583154	78.545510	7.78	I	SHAMIRPET
97	17.580021	78.558091	8.37	I	SHAMIRPET
98	17.584284	78.551469	13.55	I	SHAMIRPET
99	17.583748	78.561705	7.87	I	SHAMIRPET
100	17.566866	78.572070	16.78	II	SHAMIRPET
101	17.561514	78.600697	10.21	I	UPPERPALLY
102	17.564134	78.617543	7.71	I	UPPERPALLY
103	17.568467	78.600017	11.75	I	UPPERPALLY
104	17.565936	78.611860	9.53	I	UPPERPALLY

Map Showing Suitability Index for Construction of SMC Works of Keesara Beat



Division : Medchal
Range : Keesara



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
71	17.528985	78.697669	12.37	I
72	17.518418	78.598438	13.90	I
73	17.539152	78.663655	5.66	I
74	17.547466	78.687268	12.13	I
75	17.539344	78.682592	8.42	I
76	17.545676	78.687172	14.06	I
77	17.542147	78.682890	9.10	I
78	17.505859	78.605816	9.21	IV
79	17.505207	78.615226	9.71	IV

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

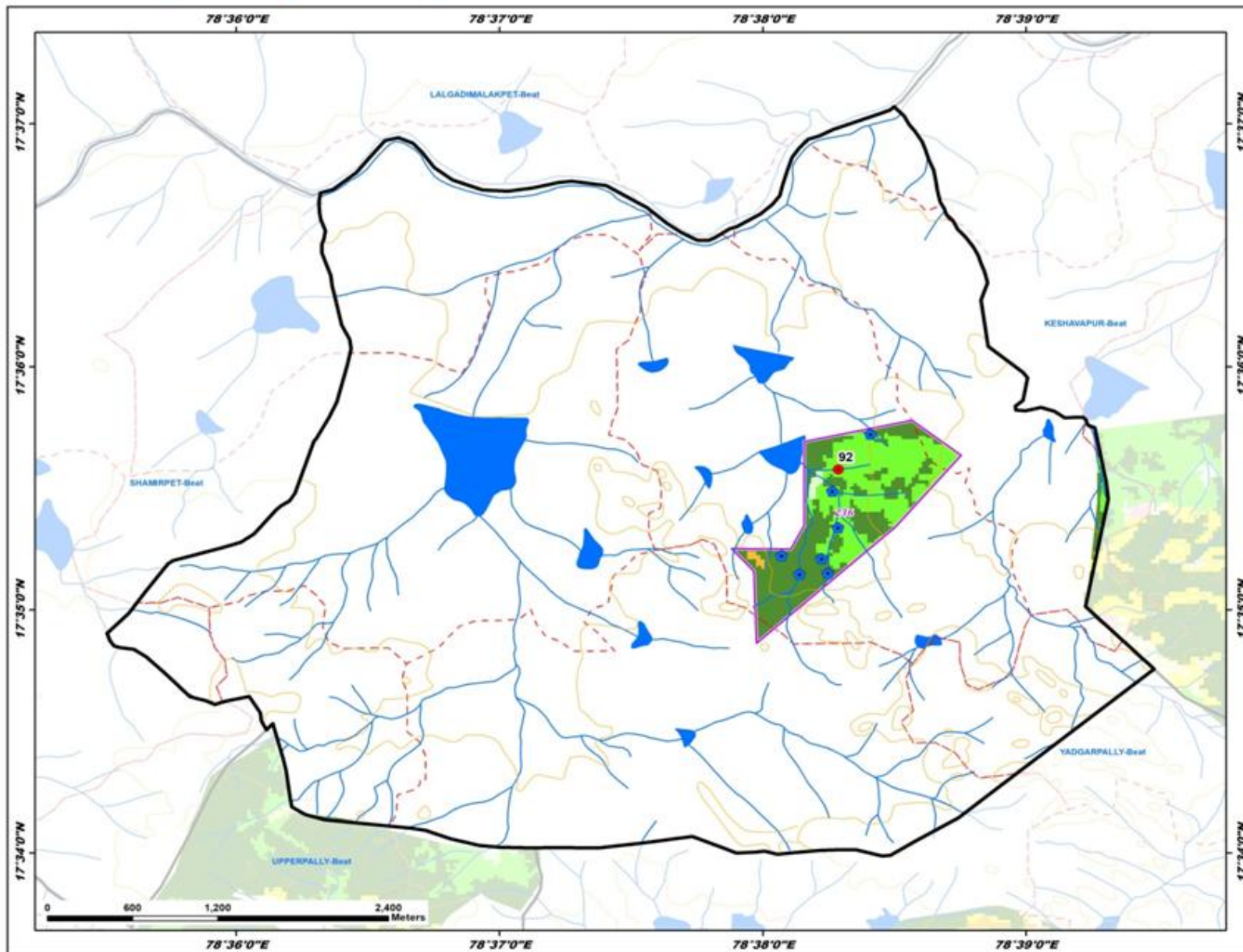
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Ponnal Beat



Division : Medchal
Range : Keesara



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
92	17.592975	78.638137	6.53	II

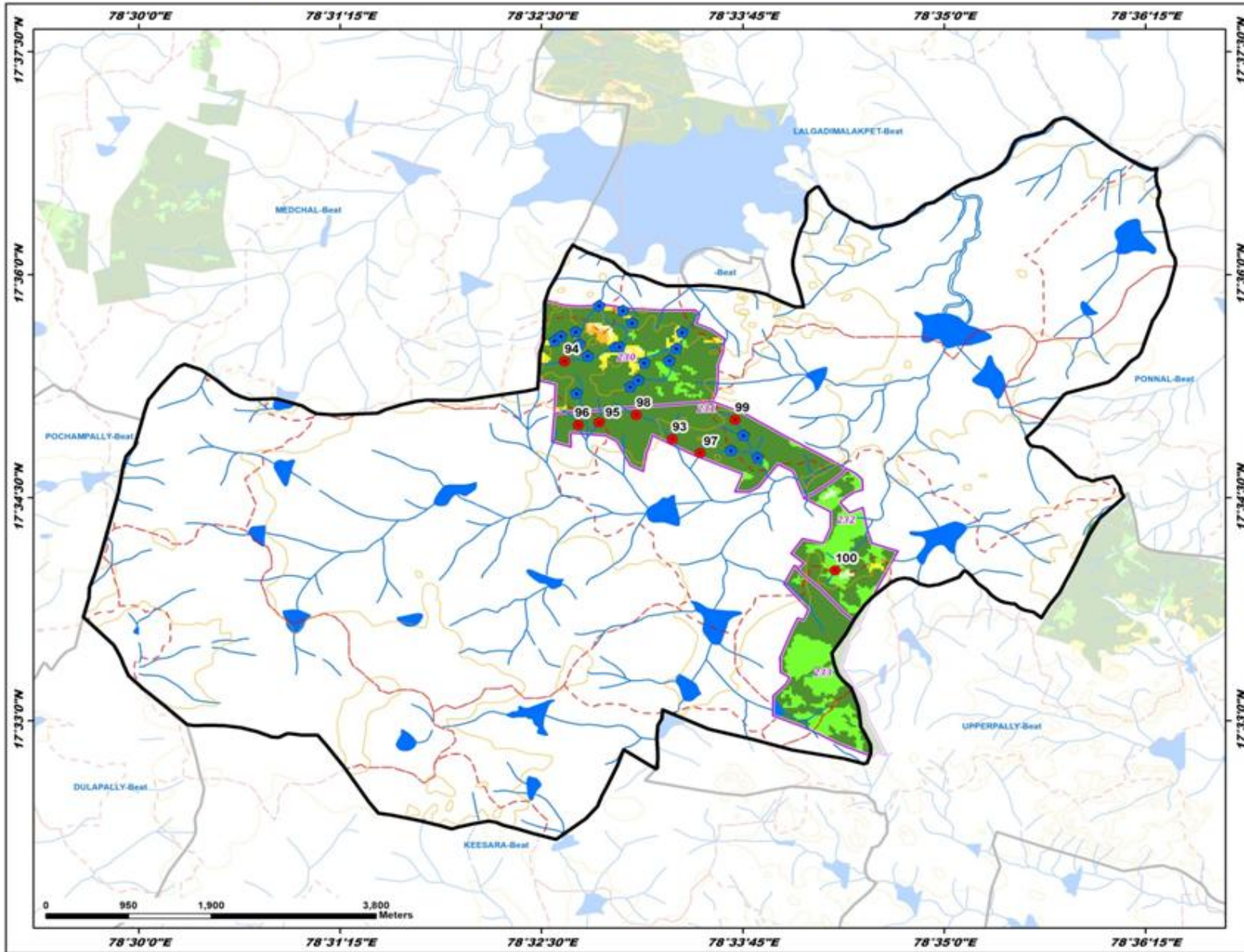
LEGEND

- Proposed PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - - - Watershed Boundary
 - - - Compartment Boundary
 - ▭ Beat Boundary
 - - - Division Boundary
- Suitability Index**
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGPs - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability Index for Construction of SMC Works of Shamirpet Beat



Division : Medchal
Range : Keesara



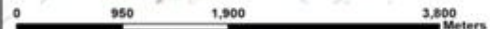
ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
93	17.581567	78.555197	7.91	I
94	17.590278	78.548045	12.45	I
95	17.583451	78.547642	10.45	I
96	17.583154	78.545510	7.78	I
97	17.580021	78.558091	8.17	I
98	17.586284	78.551469	13.55	I
99	17.583748	78.561705	7.87	I
100	17.566886	78.572070	16.78	II

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

Suitability Index

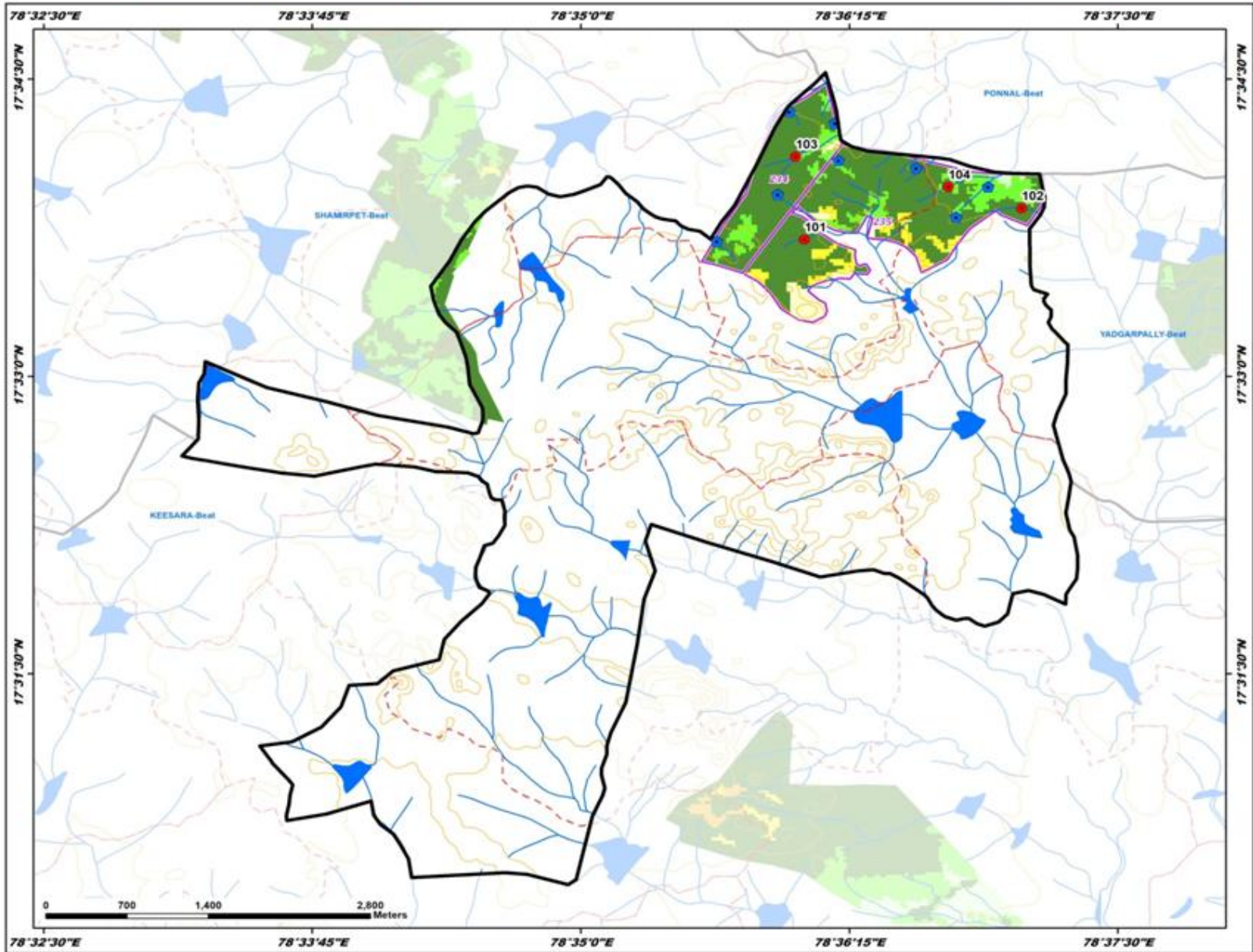
- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body



Map Showing Suitability Index for Construction of SMC Works of Upperpally Beat



Division : Medchal
Range : Keesara



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
101	17.561514	78.600697	10.21	I
102	17.564134	78.617543	7.71	I
103	17.568467	78.600017	11.75	I
104	17.565936	78.611860	9.53	I

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

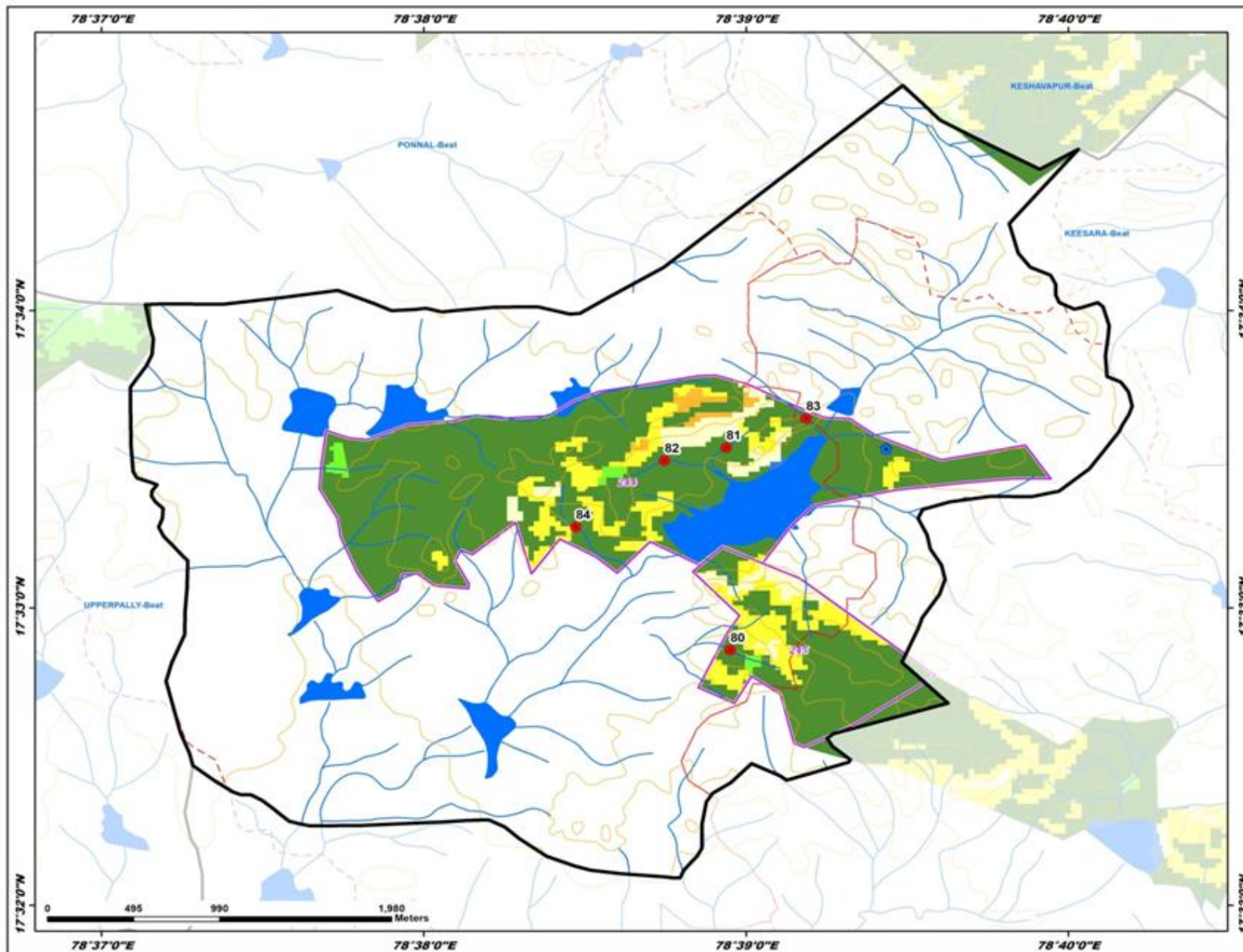
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Yadgarpally Beat



Division : Medchal
Range : Keesara



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
80	17.547645	78.649197	12.67	I
81	17.558993	78.648986	6.09	I
82	17.558268	78.645796	9.56	I
83	17.560619	78.653110	16.00	I
84	17.556540	78.641195	17.56	I

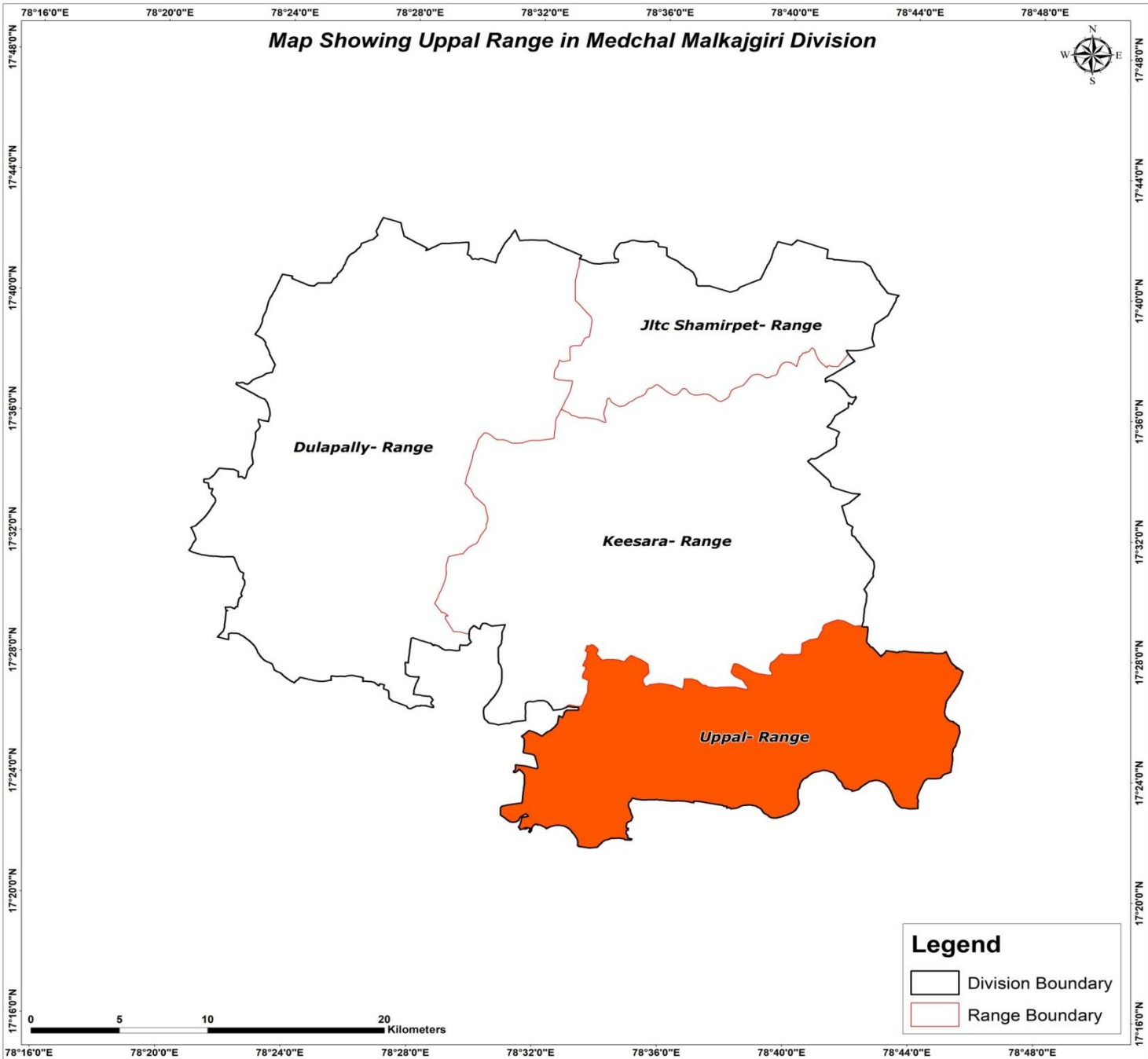
LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

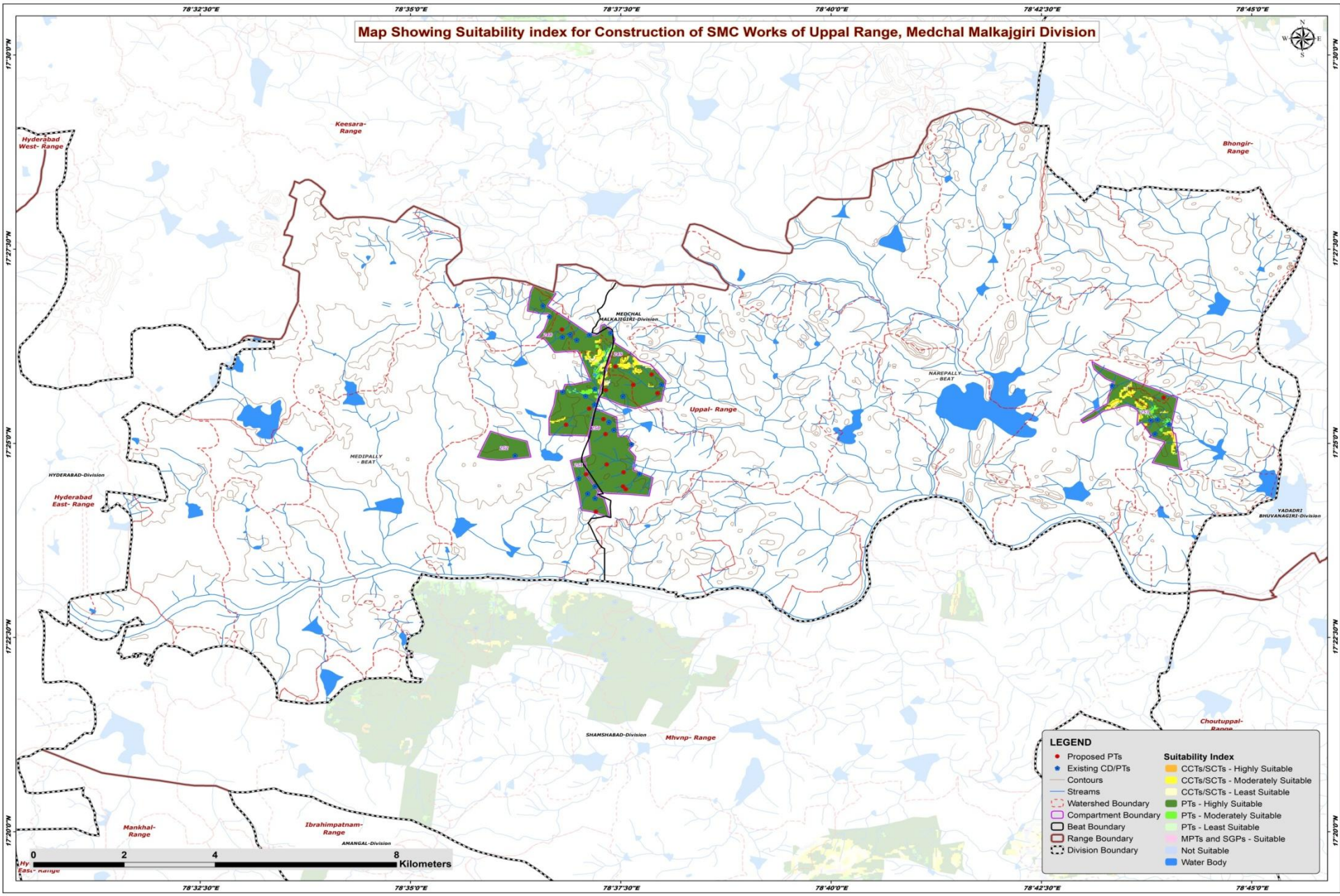
Map Showing Uppal Range in Medchal Malkajgiri Division



0 5 10 20 Kilometers

Legend
Division Boundary
Range Boundary

Map Showing Suitability index for Construction of SMC Works of Uppal Range, Medchal Malkajgiri Division

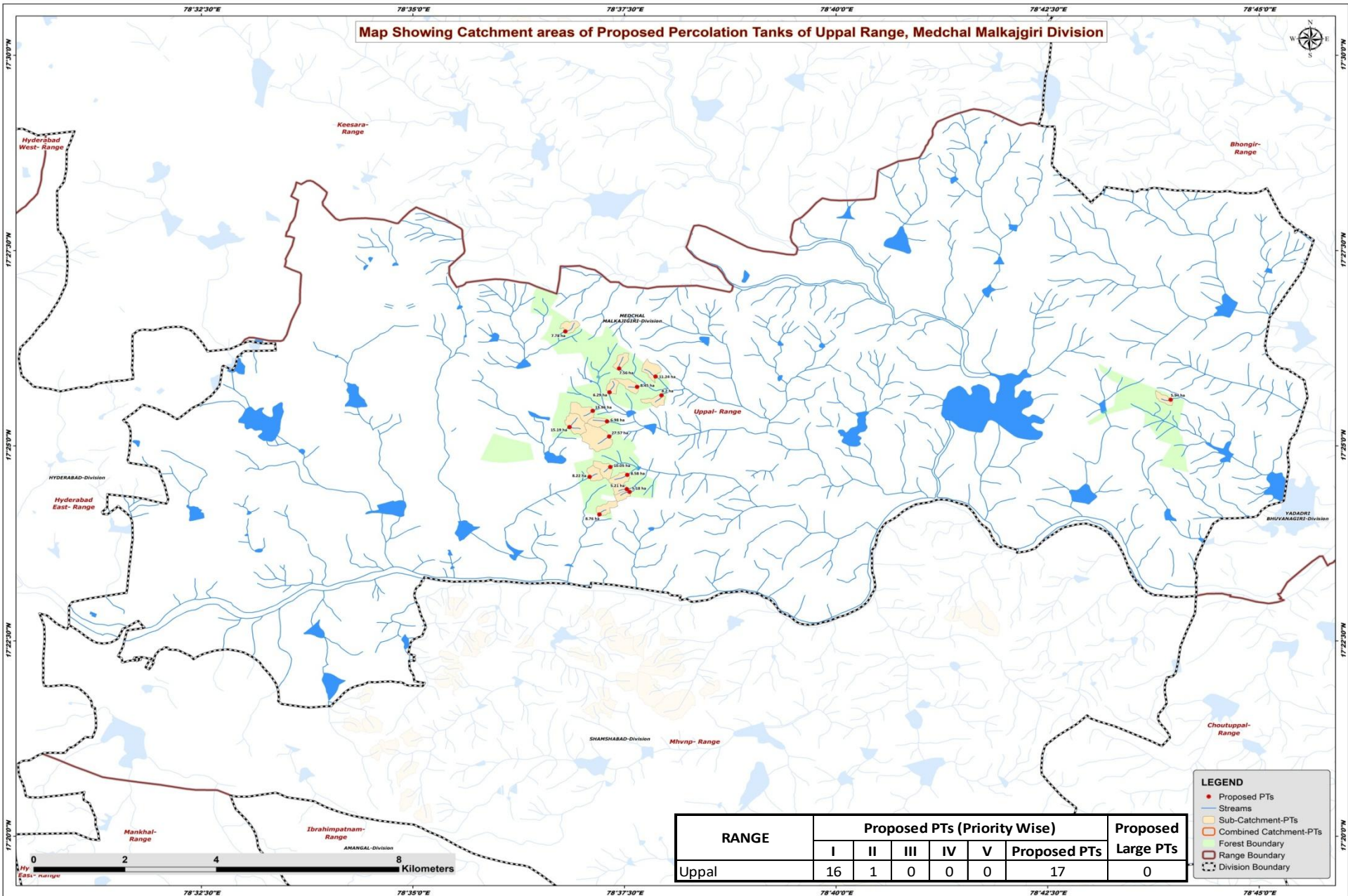


LEGEND	
●	Proposed PTs
●	Existing CD/PTs
—	Contours
—	Streams
—	Watershed Boundary
—	Compartment Boundary
—	Beat Boundary
—	Range Boundary
—	Division Boundary
■	CCTs/SCTs - Highly Suitable
■	CCTs/SCTs - Moderately Suitable
■	CCTs/SCTs - Least Suitable
■	PTs - Highly Suitable
■	PTs - Moderately Suitable
■	PTs - Least Suitable
■	MPTs and SGPs - Suitable
■	Not Suitable
■	Water Body

0 2 4 8 Kilometers



Map Showing Catchment areas of Proposed Percolation Tanks of Uppal Range, Medchal Malkajgiri Division



RANGE	Proposed PTs (Priority Wise)					Proposed PTs	Proposed Large PTs
	I	II	III	IV	V		
Uppal	16	1	0	0	0	17	0

- LEGEND**
- Proposed PTs
 - Streams
 - Sub-Catchment-PTs
 - Combined Catchment-PTs
 - Forest Boundary
 - Range Boundary
 - Division Boundary

Beat wise Abstract of Proposed PT's – Uppal Range

S. No.	Beat	Proposed PT's
1	MEDIPALLY	5
2	NAREPALLY	12
	Total	17

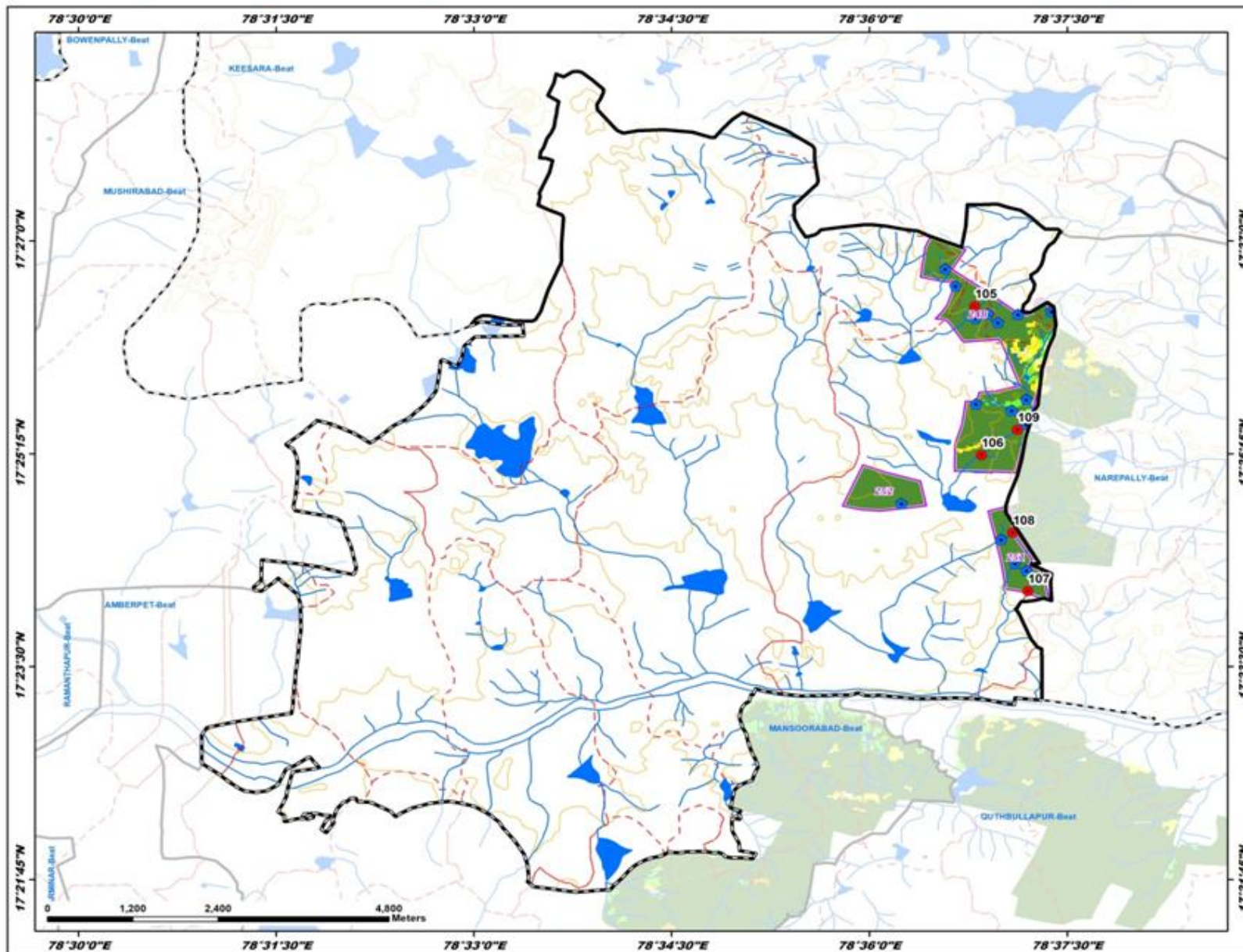
List of Proposed PTs – Uppal Range

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
105	17.441077	78.613366	7.78	I	MEDIPALLY
106	17.420661	78.614176	15.19	I	MEDIPALLY
107	17.402026	78.620064	8.76	I	MEDIPALLY
108	17.410049	78.618144	8.22	I	MEDIPALLY
109	17.424140	78.618760	13.96	I	MEDIPALLY
110	17.429261	78.627488	8.45	I	NAREPALLY
111	17.433163	78.623965	7.56	I	NAREPALLY
112	17.426516	78.732564	5.94	I	NAREPALLY
113	17.427449	78.632307	8.20	I	NAREPALLY
114	17.406846	78.626015	5.18	I	NAREPALLY
115	17.431456	78.631137	11.24	I	NAREPALLY
116	17.412164	78.622222	10.05	I	NAREPALLY
117	17.421875	78.621579	6.98	I	NAREPALLY
118	17.407419	78.625468	5.21	I	NAREPALLY
119	17.428098	78.622047	6.29	I	NAREPALLY
120	17.410466	78.625569	8.58	I	NAREPALLY
121	17.418670	78.622012	27.57	II	NAREPALLY

Map Showing Suitability Index for Construction of SMC Works of Medipally Beat



Division : Medchal
Range : Uppal



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
105	17.442077	78.613366	7.78	I
106	17.420661	78.614176	15.19	I
107	17.402026	78.620064	8.76	I
108	17.410049	78.618144	8.22	I
109	17.424140	78.618760	13.96	I

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

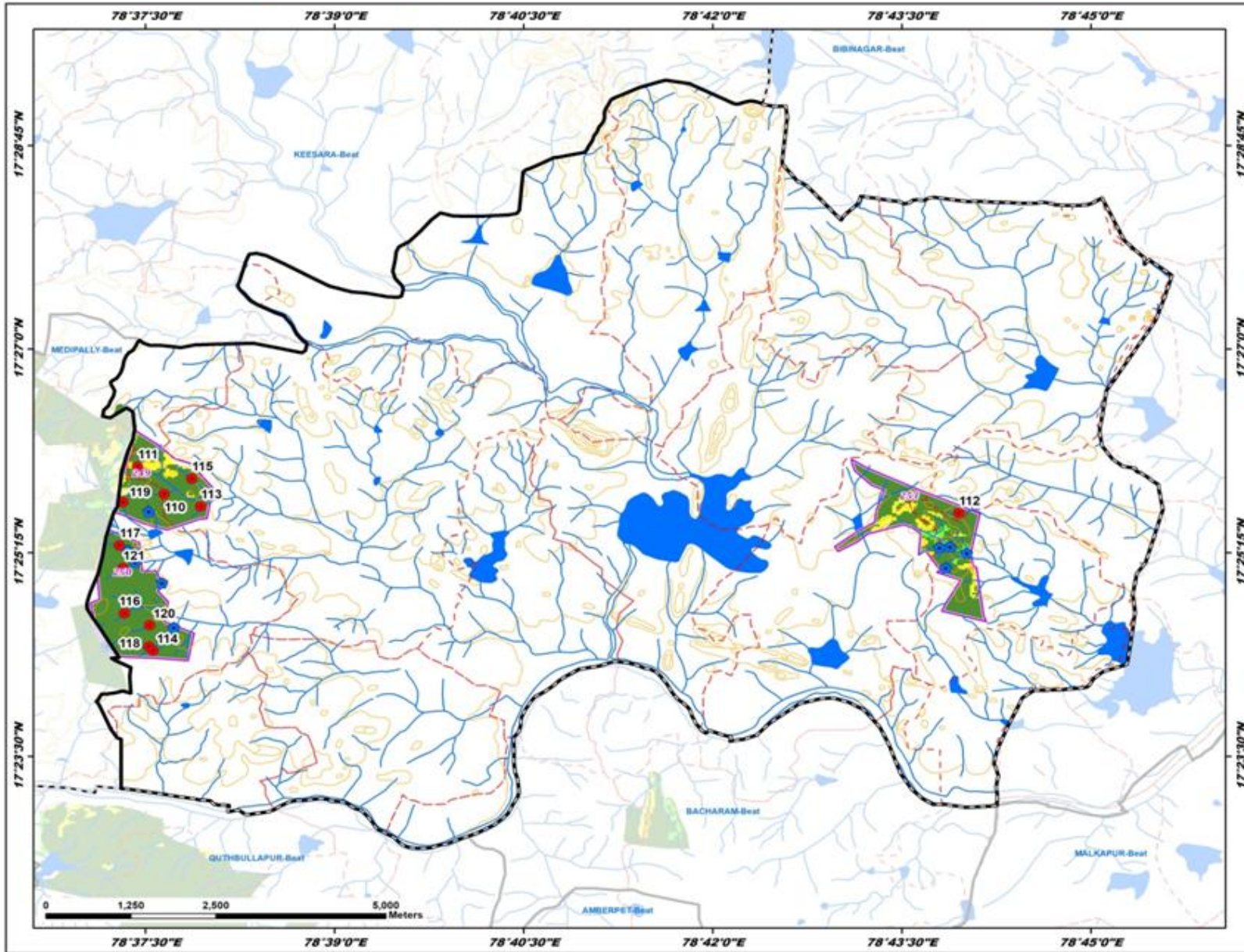
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability Index for Construction of SMC Works of Narepally Beat



Division : Medchal
Range : Uppal



ID	Latitude	Longitude	Catchment Area Ha	PRIORITY
110	17.429261	78.627488	8.45	I
111	17.433163	78.623965	7.56	I
112	17.426516	78.732564	5.94	I
113	17.427449	78.632307	8.20	I
114	17.406846	78.626015	5.18	I
115	17.431456	78.631137	11.24	I
116	17.412164	78.622222	10.05	I
117	17.421875	78.621579	6.98	I
118	17.407419	78.625468	5.21	I
119	17.428098	78.622047	6.29	I
120	17.410466	78.625569	8.58	I
121	17.418670	78.622012	27.57	II

LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body