

**SUPPORTING DATA FOR  
DISTRICT ENVIRONMENTAL ATLAS OF PUNE**

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**Table 1. Talukawise Total Population, Density and Decadal Growth Rate in Pune District**

Sr.No.	Taluka	Area (sq.km.)	Total Population (in lakh)				Population Density (Persons per sq. km.)				Decadal Growth Rate (%)			
			1971	1981	1991	2001*	1971	1981	1991	2001*	1971	1981	1991	2001*
1	Pune City	184	10.00	13.80	17.35	26.96	5435	7502	9429	14652	38	38	26	55
2	Khed	1400	1.97	2.32	2.83	3.43	141	166	202	245	25	18	22	21
3	Ambegaon	1043	1.39	1.61	1.87	2.14	134	154	179	205	17	15	16	14
4	Junnar	1385	2.08	2.46	3.04	3.70	151	178	219	267	21	18	24	22
5	Shirur	1557	1.50	1.83	2.39	3.11	96	117	153	199	13	23	31	30
6	Daund	1290	1.46	1.89	2.64	3.41	113	146	205	265	13	29	37	29
7	Indapur	1468	1.96	2.28	2.88	3.48	134	155	198	237	27	16	26	30
8	Haveli	1337	3.66	6.55	11.54	13.53	278	490	863	1012	47	79	76	18
9	Baramati	1422	2.28	2.58	3.10	3.73	165	186	224	262	21	13	20	20
10	Purandhar	1104	1.50	1.61	1.94	2.23	136	146	175	203	19	7	20	16
11	Bhor	892	1.14	1.30	1.55	1.72	128	145	174	193	19	14	20	11
12	Velha	497	0.41	0.46	0.54	0.56	82	91	106	112	1	12	20	5
13	Mulshi	1039	0.92	1.09	1.24	1.27	88	105	118	123	14	19	13	4
14	Maval	1131	1.51	1.88	2.42	3.05	134	166	214	270	30	24	29	26
	<b>Total</b>	<b>15642</b>	<b>31.78</b>	<b>41.64</b>	<b>55.33</b>	<b>72.32</b>								

**Note:** Decadal growth rate for the year 1971 has been calculated based on the population for the year 1961.

**Source:** 1. District Social and Economical Review Report, Economics & Statistical Department, Pune District (2000-01).

2. \* Census of India (2001).

**Table 2. Talukawise Urban- Rural population of Pune District (2001)**

Taluka	Total Area* (sq.km.)	No. of Villages	No. of Towns	Population (x 1000)	Population Density (Persons/ km <sup>2</sup> )
<b>Pune City</b>					
Rural	18	0	---	0.00	0.00
Urban	166	---	3	2695.91	16240.43
Total	184	0	3	2695.91	14651.69
<b>Khed</b>					
Rural	1393	186	---	286.33	205.55
Urban	7	---	3	56.88	8125.86
Total	1400	186	3	343.21	245.15
<b>Ambegaon</b>					
Rural	1043	143	---	200.04	191.8
Urban	0	---	1	13.80	
Total	1043	143	1	213.84	205.03
<b>Junnar</b>					
Rural	1379	181	---	345.07	250.23
Urban	6	---	1	24.74	4123.50
Total	1385	181	1	369.81	267.01
<b>Shirur</b>					
Rural	1495	117	---	283.59	189.69
Urban	62	---	1	27.00	435.47
Total	1557	117	1	310.59	199.48
<b>Daund</b>					
Rural	1241	103	---	299.18	241.08
Urban	49	---	1	42.20	861.31
Total	1290	103	1	341.39	264.64
<b>Indapur</b>					
Rural	1439	143	---	326.82	227.12
Urban	29	---	1	21.59	744.55
Total	1468	143	1	348.41	237.34
<b>Haveli</b>					
Rural	1145	102	---	288.33	251.81
Urban	192	---	3	1064.73	5545.44
Total	1337	102	3	1353.05	1012.00
<b>Baramati</b>					
Rural	1341	117	---	321.52	239.76
Urban	81	---	1	51.33	633.75
Total	1422	117	1	372.85	262.20

Table 2. Talukawise Urban- Rural population of Pune District (2001) (contd...)

Taluka	Total Area* (sq.km.)	No. of Villages	No. of Towns	Population (x 1000)	Population Density (Persons/ km <sup>2</sup> )
<b>Purandhar</b>					
Rural	1091	107	---	174.60	160.04
Urban	12	---	3	48.82	4068.67
Total	1103	107	3	223.43	202.56
<b>Bhor</b>					
Rural	884	195	---	153.83	174.02
Urban	8	---	1	17.89	2235.75
Total	892	195	1	171.72	192.51
<b>Velha</b>					
Rural	497	128	---	55.87	112.42
Urban	---	---	0	0.00	0.00
Total	497	128	0	55.87	112.42
<b>Mulshi</b>					
Rural	1039	141	---	119.41	114.93
Urban	0	---	1	7.98	
Total	1039	141	1	127.39	122.60
<b>Maval</b>					
Rural	1082	181	---	177.12	163.70
Urban	49	---	5	127.97	2611.53
Total	1131	181	5	305.08	269.75
<b>Total District</b>					
Rural	15015	1844	---	3031.72	201.91
Urban	627	---	25	4200.84	6699.90
Total	15642	1844	25	7232.56	462.38

**Source:** 1. Census of India, 2001.

2. \*District Social and Economical Review Report, Economics & Statistical Department, Pune District (2003-04)

**Table 3. Talukawise decadal trend of Rural Population in Pune District**

Sr.No.	Taluka	No. of Villages in each Taluka*	Area (sq. km.)	Rural Population (x 1000)			
				1971	1981	1991	2001*
1.	Pune City	0	184	1	10	8	0
2.	Khed	186	1,400	192	224	273	286
3.	Ambegaon	143	1,043	139	161	187	200
4.	Junnar	181	1,385	194	228	283	345
5.	Shirur	117	1,557	141	171	221	284
6.	Daund	103	1,290	146	189	264	300
7.	Indapur	143	1,468	166	195	248	327
8.	Haveli	102	1,337	230	303	387	288
9.	Baramati	117	1422	200	220	266	322
10.	Purandhar	107	1,103	135	137	156	175
11.	Bhor	195	892	103	116	140	154
12.	Velha	128	497	38	45	54	56
13.	Mulshi	141	1,039	92	109	123	119
14.	Maval	181	1,131	107	129	148	177
	<b>Total</b>	<b>1,844</b>	<b>15,642</b>	<b>1,848</b>	<b>2,193</b>	<b>2,725</b>	<b>3,032</b>

**Source:** 1. District Social and Economical Review Report, Economics & Statistical Department, Pune District (2000-01).  
2. \* Census of India (2001).

**Table 4. Talukawise decadal trend of Sex Ratio in Pune District**

Taluka	Area (sq.km.)	Population 1971				Population 1981				Population 1991				Population 2001*			
		Male (x 1000)	Female (x 1000)	Total (x 1000)	Sex Ratio	Male (x 1000)	Female (x 1000)	Total (x 1000)	Sex Ratio	Male (x 1000)	Female (x 1000)	Total (x 1000)	Sex Ratio	Male (x 1000)	Female (x 1000)	Total (x 1000)	Sex Ratio
Pune City	184	535	465	1000	869	730	650	1380	889	904	831	1735	919	1406	1290	2696	917
Khed	1400	100	97	197	980	117	115	232	983	144	139	283	959	178	165	343	927
Ambegaon	1043	69	70	139	1014	79	82	161	1038	93	94	187	1011	108	106	214	987
Junnar	1385	103	106	209	1029	121	125	246	1041	152	152	304	1000	187	183	370	976
Shirur	1557	76	74	150	974	91	92	183	989	121	118	219	967	161	150	311	934
Daund	1290	75	71	146	947	97	92	189	948	136	128	264	934	177	164	341	927
Indapur	1468	101	95	196	941	118	110	228	940	149	139	288	933	181	168	348	930
Haveli	1337	195	171	366	877	350	305	655	874	613	541	1154	883	725	628	1353	865
Baramati	1422	117	111	228	949	132	126	258	955	160	150	310	938	193	180	373	936
Purandhar	1103	75	75	150	1000	79	82	161	1038	98	96	194	990	114	109	223	958
Bhor	892	55	59	114	1073	62	68	130	1097	76	79	155	1039	85	86	172	1011
Velha	497	20	21	41	1050	22	24	46	1091	27	27	54	1038	28	28	56	1008
Mulshi	1039	46	46	92	1000	54	55	109	1019	63	61	124	984	66	61	127	921
Maval	1131	79	72	151	911	98	90	188	918	126	116	242	929	160	145	305	903
<b>Total</b>	<b>15642</b>	<b>1646</b>	<b>1533</b>	<b>3179</b>		<b>2150</b>	<b>2016</b>	<b>4166</b>		<b>2862</b>	<b>2671</b>	<b>5533</b>		<b>3769</b>	<b>3463</b>	<b>7232</b>	
<b>Average</b>					972				987				966				943

**Source:** 1. District Social and Economical Review Report, Economics & Statistical Department, Pune District (2000-01).

2. \* Census of India (2001).



**Table 5. Occupational Pattern in Pune District**

<b>Taluka</b>	<b>Total Population</b>	<b>Total Workers</b>	<b>Main Workers</b>	<b>Marginal Workers</b>	<b>Non Workers</b>	<b>Non Workers (%)</b>	<b>Working Population as % of Total Population</b>
Junnar	3,69,806	1,85,378	1,58,772	26,606	1,84,428	49.87	50.13
Ambegaon	2,13,842	1,12,914	97,312	15,602	1,00,928	47.20	52.80
Shirur	3,10,590	1,58,196	1,42,212	15,984	1,52,394	49.07	50.93
Khed	3,43,214	1,73,932	1,49,346	24,586	1,69,282	49.32	50.68
Mawal	3,05,083	1,26,963	1,07,723	19,240	1,78,120	58.38	41.62
Mulshi	1,27,385	66,169	54,733	11,436	61,216	48.06	51.94
Haveli	13,53,050	4,96,818	4,57,515	39,303	8,56,232	63.28	36.72
Pune City	26,95,911	9,21,913	8,65,650	56,263	17,73,998	65.80	34.20
Daund	3,41,388	1,61,883	1,44,344	17,539	1,79,505	52.58	47.42
Purandhar	2,23,428	1,11,063	96,928	14,135	1,12,365	50.29	49.71
Velhe	55,874	29,706	23,340	6,366	26,168	46.83	53.17
Bhor	1,71,719	83,636	64,652	18,984	88,083	51.29	48.71
Baramati	3,72,852	1,75,226	1,58,071	17,155	1,97,626	53.00	47.00
Indapur	3,48,413	1,50,685	1,24,831	25,854	1,97,728	56.75	43.25
<b>Total</b>	<b>72,32,555</b>	<b>29,54,482</b>	<b>26,45,429</b>	<b>3,09,053</b>	<b>42,78,073</b>	<b>52.98 (avg.)</b>	<b>40.85 (avg.)</b>

*Source: Census of India (2001)*

**Table 6. Occupational Structure of Pune District (As per census 1991)**

Name of Taluka	Primary Sector				Secondary Sector			Tertiary Sector		
	Cultivators	Agri-cultural Labourers	Mining & Quarrying	Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and Allied Activities	Manufacturing, Processing, Servicing and Repairs in Household Industry	Manufacturing, Processing, Servicing and Repairs in other than Household Industry	Construction	Trade and Commerce	Transport, and Communications	Other Services
	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)	(x 100)
Pune City	33	36	4	36	90	1374	582	1158	439	1643
Khed	813	211	2	14	14	63	21	48	23	76
Ambegaon	507	128	1	19	11	23	14	29	11	48
Junnar	758	287	3	22	20	41	20	55	26	80
Shirur	702	221	1	20	14	47	19	39	20	58
Daund	459	312	1	22	13	49	15	47	50	93
Indapur	459	447	1	27	17	63	14	47	17	72
Haveli	514	362	13	55	68	1294	334	360	256	660
Baramati	508	439	1	30	16	96	18	75	28	94
Purandhar	471	164	1	16	18	37	12	39	26	57
Bhor	376	91	1	13	11	52	8	24	17	39
Velha	173	32	0	5	2	6	4	5	2	10
Mulshi	326	66	3	10	6	59	14	16	8	28
Maval	339	78	3	40	8	144	46	73	59	111
<b>Total</b>	<b>6438</b>	<b>2874</b>	<b>35</b>	<b>329</b>	<b>308</b>	<b>3348</b>	<b>1121</b>	<b>2015</b>	<b>982</b>	<b>3069</b>

*Source: District Social and Economical Review Report, Economics & Statistical Department, Pune District (2000-01).*

**Table 7. Talukawise Livestock in Pune District (As per census 1997)**

Sr.No.	Taluka	Category of live stock							Total Livestock
		Oxen	Sheep	Goat	Buffalow	Cow	Poultry	Others	
1.	Pune City	1,613	1,672	11,525	23,313	3,225	58,326	11,597	111,271
2.	Khed	33,674	9,199	46,727	124,279	15,654	88,093	67	317,693
3.	Ambegaon	19,668	13,076	51,497	85,524	10,892	58,161	946	239,764
4.	Junnar	27,652	7,006	67,423	104,834	11,014	73,459	1,675	293,063
5.	Shirur	21,047	55,715	55,988	93,671	10,163	114,095	2,615	353,294
6.	Daund	16,266	85,061	83,378	129,006	15,110	125,867	6,057	460,745
7.	Indapur	13,715	31,575	102,731	121,411	14,194	242,121	5,571	531,318
8.	Haveli	14,786	43,412	35,096	82,118	12,359	424,381	4,683	616,835
9.	Baramati	10,069	92,226	93,858	122,129	9,339	240,884	4,773	573,278
10.	Purandhar	17,542	66,283	54,584	72,331	9,573	116,255	6,231	342,799
11.	Bhor	11,919	2,470	13,350	61,381	8,808	81,881	430	180,239
12.	Velha	7,635	978	4,689	38,003	6,628	26,525	-	84,458
13.	Mulshi	13,526	2,202	10,771	56,018	9,265	74,394	246	166,422
14.	Maval	20,472	1,862	13,209	68,171	10,824	440,152	814	555,504
	<b>Total</b>	<b>229,584</b>	<b>412,737</b>	<b>644,826</b>	<b>1,182,189</b>	<b>147,048</b>	<b>2,164,594</b>	<b>45,705</b>	<b>4,826,683</b>

**Source:** District Social and Economical Review Report, Economics & Statistical Department, Pune District (2000-01).

**Table 8. Typewise lengths of road surfaces within Pune District**

Sr. No.	Type of Road	Type of Road Surface			Total Length (km)
		Cement Concrete	Waterbound macadam road	Other surface (unmetalled road)	
1	National Highways	331	0	0	331
2	State Highways	1320	13	35	1368
3	Major District Roads	2022	594	282	2898
4	Other District Roads	758	950	782	2490
5	Village Roads	963	1997	3595	6555
	<b>Total road length (km)</b>	<b>5394</b>	<b>3554</b>	<b>4694</b>	<b>13642</b>

*Source: District Social and Economical Review Report, Economics & Statistical Department, Pune District (2001).*

**Table 9. Description of National Highways within Pune District**

NH No.	Name	Length within Dist. (km)	Connectivity (Name of the settlements)
NH-4	Mumbai-Panvel-Pune-Bangalore National Highway	120	Khandala, Lonavala, Talegaon, Chinchwad, Pune, Katraj, Khed-Shivapur
NH-9	Pune-Solapur-Hyderabad National Highway	152	Pune-Loni, Bhigwan, Indapur
NH-50	Pune-Nasik National Highway	95	Pune, Chakan, Rajgurunagar, Manchar, Narayangaon & Alephata
<b>Total Length (NH- 4, 9 and 50)</b>		<b>331</b>	

*Source: Public Works Division, Pune (2001).*

**Table 10. Description of State Highways within Pune District**

Name/ Number	Connectivity (name of the settlements)*
Pune- Mumbai Express Highway	Panvel, Khandala, Lonavala, Kusegaon, Taje, Pimpaloli, Baur, Karunj, Somatan, Punavale, Hinjavadi, hingane, Vadgaon-kh, Ambegaon Varsoli, Dongargaon, Kusgaon Bk., Devale, Pimpaloi, Bedse, Baur, Ozarde, Somatane, Dehu, Gahunje.
Major State Highway No. 2	Karanjale, Madh, Kolwadi, Dingore, Udapur, Otur, Khamundi, Pimpripendhar, WadgaonAnand, Ale, Rajuri, Gunjalwadi, Belhe, Gulanchwadi, Ane, Pemdara.
State Highway No. 71	Indapur, Vadapuri, Shetphalhaveni, Surwad, Vakilwasti, Bavada, Sarati.
State Highway No. 69	Kanand, Velhe Bk., Khodad, Lashirgaon, Malawadi, Vinzar, Khambawadi, Margasani, Adavali, Ambavane, Malegaon, Narapur.
State Highway No. 67	From NH-9, Patas to Shringonda.
State Highway No. 66	Indapur, Gokhali, Nimgaon Ketki, Gotandi, Snthurne, Lasurne, Jachakvasti, Sansar, Katewadi, Pimpali, Baramati, Pandare, Vadgaon Nimbalkar, Soratewadi, Karanjepul, Waghawadi, Nimbut.
State Highway No. 64	From SH-61 Near Shivari, Saswad, Pawarwadi, Zendewadi to SH-60.
State Highway No. 62	Shirur, Karade, Ambale, Nhavara, Khopodi, Supe, Kalkhairewadi, Baburdi, LoniBhapkar, Mudhale, Malwadi, Late, Pandharwadi, Sangvi
State Highway No. 61	Pimple kh., Pisurti, Walhe, Daundaj, Belsar, Pargaon, Wagharpur, Shindwane, Urali Kanchan, Bhawarapur, Ashtapur, Shikrapur, Jategaon, Mukhai, Dhamari, Pabal, Loni, Khadakwadi, Pondewadi, Lakhangaon, Pargaon, Mangul, Belhe.
State Highway No. 60	Nive, MulshiKhurd, Jamgaon, Paud, Kasar, Amboli, Pirangut, Bhugaon, Kotharud, Wagholi, Koregaon Bhima, Shikrapur, Kondhapuri, Karegaon, Saradwadi, Shirur.
State Highway No. 59	Bahuli, Mandvi Bk., Mandvi Kh., Kudaje, Kondhave, Kotharud, Karve road.
State Highway No. 54	Bhimashankar, Bhorgiri, Tokavade, Dhamangaon-Khurd, Kharoshi, Gundaiwadi, Bursewadi, Kadadhe, Kanhewadi Bk., Moholkar, Kaman, Chas, Rajgurunagar, Holewadi, Retawadi, Gosasi, Kanhersar, Pabal, Kanhur, Lakhewadi, Malthan, Annapur, Shirur.
State Highway No. 53	Nigdale, Rajpur, Chikhali, Pokhari, Rajewadi, Ambegaon, Supedhar, Shinoli, Ghodegaon, Walunjwadi, Manchar, Chandoli Kh., Chandoli Bk., Throndale, Ranjani, Nimgaon Sawa.
State Highway No. 50	1) Karanjale, Sitewadi, Agar, Narayangaon in Junnar taluka. 2) Amboli, Uravade, Ambegaon, Maranewadi, Muthe in Mulshi taluka. 3) Katraj to SH-64 in Haveli taluka.
State Highway No. 10	Sangvi, Shiravali, Pawnewadi, Malad, Baramati, Rui, Vanjarwadi, Shetfalgada, Larnjewadi, Bhigvan, Khanote.
State Highway No. 16	Baramati, Undavadisupe, Kharadewadi, Kurkumbh, Sonwadi.

**Source:** 1. Public Works Division, Pune (2001).  
2. \* Data from Map No. 3

**Table 11. Total road length in tribal and non-tribal area of Pune District**

Sr. No.	Area	National Highways	State Highways	Major District Roads	Other District Roads	Village Roads	Total (km)
1.	Tribal	0	111	180	130	251	672
2.	Non-Tribal	302	1280	2721	2348	6227	12878
	<b>Total</b>	<b>302</b>	<b>1391</b>	<b>2901</b>	<b>2478</b>	<b>6478</b>	<b>13550</b>

*Source: Public Works Department, Pune (2003-04).*

**Table 12. Rail and Air connectivity in Pune District**

Railway				Airports		
Railway Route	Type of Railway Line	Connectivity	Name of major settlements which it links	Name	Category	Connectivity
Mumbai-Pune-Daund-Solapur/Ahmednagar (Central Railway)	Double track / Broad gauge	Khandala, Lonavala, Talegaon, Pune, Urali Kanchan and Daund	Lonavala, Talegaon, Pimpri, Chinchwad, Urali Kanchan and Daund	Lohgaon, Pune (Domestic & International Cargo)	Domestic	Mumbai-Pune-Delhi, Pune-Dubai
Pune-Miraj Railway (Central Railway)	Single track Broad Gauge	Saswad Road, Jejuri, Welhe and Nira	Saswad, Jejuri	---	---	---
Daund-Baramati (Central Railway)	Single track Broad Gauge	Yavat, Kedgaon, Patas, Daund, Bariwell, Malthan, Ravangaon and Bhigvan	Yavat, Kedgaon, Patas, Daund	---	---	---
<b>Total length of Railway Tracks in Pune District</b>	Single Line Track- 162 km; Double Line Track – 149 km; Total Length – 311 km					

*Source: Public Works Department, Pune (2003-04).*

**Table 13. Talukawise Rainfall (mm) distribution in Pune district (2001)**

<b>Taluka</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sep.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Khed	108.9	182.9	104.9	130.5	70.1	32.8	5.1	635.2
Ambegaon	115.4	251.1	134.2	117.1	70.1	34.3	3.9	726.1
Junnar	111.5	247.6	139.3	115.1	68.3	36.1	5.7	723.6
Shirur	100.1	77.5	51.5	138.9	62.9	30.0	7.2	468.1
Daund	76.9	64.1	47.5	133.8	71.3	29.1	6.4	429.1
Indapur	91.6	65.0	58.8	142.0	71.7	28.7	7.6	465.4
Baramati	93.9	51.3	52.8	133.8	72.2	32.1	5.3	441.4
Purandhar	90.3	126.9	72.1	111.2	87.2	33.1	9.1	529.9
Haveli	104.2	178.4	102.2	121.8	78.0	29.9	5.0	619.5
Bhor	128.6	369.9	202.1	119.2	79.3	33.6	7.4	940.1
Velhe	325.1	1279.9	676.2	290.0	120.4	36.3	5.7	2733.6
Mulshi	209.3	649.4	378.5	162.5	73.4	29.8	3.3	1506.2
Maval	167.0	446.6	261.9	147.7	78.0	27.8	3.4	1132.4

**Source:** District Agriculture Office, ZP - Pune (2002).

**Table 14. Monthly variation in Temperature and Relative Humidity at Pune (2001)**

Monitoring Station: Meteorological Department, Simla chowk- Pune

Month	Temperature (°C)		Relative Humidity (%)	
	Min.	Max.	at 08.30 hrs	at 17.50 hrs
January	12.0	30.1	87	37
February	10.5	34.6	67	20
March	14.6	35.0	50	21
April	20.4	37.7	50	25
May	22.9	36.1	61	39
June	23.1	30.6	74	68
July	22.0	27.1	87	81
August	21.7	27.1	86	79
September	20.8	30.3	83	71
October	18.7	30.9	84	62
November	13.9	30.6	81	45
December	11.2	29.9	88	42

**Source:** Dy. Director-General, Regional Meteorological Department, Mumbai (2002-03)



**Table 15. Monthly wind occurrences for the period 1981-1994**

Monitoring Station: Meteorological Department, Simla Chowk- Pune

Month	Sea son	Wind Occurrence at 08.30 hrs.									Wind Occurrence at 17.30 hrs.								
		Direction								Calm (%)	Direction								Calm (%)
		North	N-E	East	S-E	South	S-W	West	N-W		North	N-E	East	S-E	South	S-W	West	N-W	
February	Summer	Nil	1	1	Nil	Nil	2	3	2	91	1	5	10	5	Nil	3	24	36	16
March		Nil	2	4	3	1	3	7	4	76	1	3	6	5	Nil	4	28	41	12
April		Nil	2	4	1	1	5	16	16	55	1	3	2	2	Nil	3	35	52	2
May		Nil	Nil	2	1	1	6	49	24	17	1	2	Nil	1	Nil	9	38	48	1
June	Monsoon	Nil	Nil	1	Nil	Nil	13	65	13	8	Nil	Nil	2	Nil	Nil	20	59	19	2
July		Nil	Nil	Nil	Nil	Nil	14	73	9	4	Nil	Nil	Nil	Nil	Nil	19	72	9	0
August		Nil	Nil	Nil	Nil	Nil	15	69	8	8	Nil	Nil	Nil	Nil	Nil	14	72	14	0
September		Nil	1	1	Nil	Nil	11	42	14	31	Nil	2	1	Nil	Nil	12	49	28	8
October	Winter	1	7	9	1	Nil	3	8	5	66	1	9	14	5	Nil	5	16	23	27
November		1	6	13	3	Nil	Nil	1	Nil	76	Nil	10	26	12	Nil	3	6	5	38
December		Nil	1	6	1	Nil	Nil	Nil	Nil	92	Nil	6	34	9	Nil	1	8	8	34
January		Nil	Nil	1	1	Nil	Nil	Nil	2	96	1	6	17	4	Nil	4	14	19	35

**Source:** Dy. Director-General, Regional Meteorological Department, Mumbai (2002-03)

**Table 16. Flood prone villages in Pune District (Flood 1 in 25 years)**

Sr. No.	Village Name	Taluka
1	Udapur	Junnar
2	Otur	Junnar
3	Kanase	Ambegaon
4	Shinoli	Ambegaon
5	Chandoli Bk.	Ambegaon
6	Netwad	Junnar
7	Pargaon Tarf Khed	Ambegaon
8	Alandi Rural	Khed
9	Sangurdi	Khed
10	Sarole	Bhor
11	Rajapur	Bhor
12	Pisavare	Bhor
13	Shind	Bhor
14	Yevali	Bhor
15	Kiwat	Bhor
16	Ranjani	Ambegaon
17	Shingave	Ambegaon
18	Pargaon Tarf Ale	Junnar
19	Awasari Bk.	Ambegaon
20	Hingani Berdi	Daund
21	Wadgaon Darekar	Daund

Sr. No.	Village Name	Taluka
22	Deulgaon Raje	Daund
23	Khorodi	Daund
24	Sonwadi	Daund
25	Gar	Daund
26	Khandaj	Baramati
27	Nirvagaj	Baramati
28	Mekhali	Baramati
29	Nimbut	Baramati
30	Bhambavade	Bhor
31	Nhavi	Bhor
32	Gunand	Bhor
33	Murum	Baramati
34	Hol	Baramati
35	Late	Baramati
36	Kambleshwar	Baramati
37	Sangavi	Baramati
38	Shirawali	Baramati
39	Pedgaon	Daund
40	Shirapur	Daund

**Note:** Corresponding Sr.No. of flood location denotes location no. on the map

**Source:** Disaster Management Cell, Office of the District Collector, Pune (2005).

**Table 17. Flood prone villages in Pune District (Flood 1 in 100 year)**

Sr. No.	Village Name	Taluka
41	Loni Kalbhor	Haveli
42	Pimpari	Haveli
43	Chikhali	Haveli
44	Ashtapur	Haveli
45	Chandoli Kh.	Ambegaon
46	Narodi	Ambegaon
47	Chinchodi	Ambegaon
48	Pargaon Tarf Khed	Ambegaon
49	Vadgaon Pir	Ambegaon
50	Koregaon Bhima	Shirur
51	Dingrajwadi	Shirur
52	Vitthalwadi	Shirur
53	Wadhu Bk.	Shirur
54	Ranjangaon Sandas	Shirur

Sr. No.	Village Name	Taluka
55	Nagargaon	Shirur
56	Alegaon Paga	Shirur
57	Ganegaon Dumala	Shirur
58	Mandavgan Farata	Shirur
59	Pedgaon	Daund
60	Shirapur	Daund
61	Daund	Daund
62	Hingani Berdi	Daund
63	Wadgaon Darekar	Daund
64	Khorodi	Daund
65	Lonavala	Mawal
66	Kamshet	Mawal
67	Sawargaon	Junnar
68	Madh	Junnar

Sr. No.	Village Name	Taluka
69	Narayangaon	Junnar
70	Lamjewadi	Indapur
71	Bawada	Indapur
72	Bhandgaon	Indapur
73	Ganeshwadi	Indapur
74	Narsingpur	Indapur
75	Chande	Mulshi
76	Hinjavadi	Mulshi
77	Wakad	Mawal
78	Purandhar	Purandhar
79	Alandi Rural	Khed
81	Sangavi Haveli	Haveli

**Note:** Corresponding Sr.No. of flood location denotes location no. on the map

**Source:** Disaster Management Cell, Office of the District Collector, Pune (2005).

**Table 18. Landslides prone villages in Pune district**

Sr. No.	Village Name	Taluka
1	Tamhanigaon	Mulshi
2	Talmachiwadi	Junner
3	Ahope (Sakharwadi)	Ambegaon

**Source:** Disaster Management Cell, Office of the District Collector, Pune (2005).

**Table 19. Talukawise Classification of Major Landuse in Pune District**

Taluka	Total Geographic area	Forest	Barren and unculturable land	Land put to agricultural uses	Culturable wasteland	Permanen pasture and other grazing land	Land under miscellaneous tree crop	Current fallows	Other fallows	Net area sown	Area sown more than once	Total cropped area
Pune City	11,990	235	670	9,401	499	--	--	--	--	1,185	385	1,570
Khed	1,37,354	20,079	7,533	1,842	1,852	9,457	921	7,899	6,579	81,192	13,789	94,981
Ambegaon	1,04,275	24,300	5,213	1,445	5,646	3,000	702	6,784	7,506	49,679	9,974	59,653
Junnar	1,38,452	20,876	6,822	2,967	909	1,714	90	2,754	7,146	95,174	13,210	1,08,384
Shirur	1,55,727	6,019	9,027	6,110	5,624	2,197	1,577	--	513	1,24,660	51,831	1,76,491
Daund	1,28,986	4,904	12,064	7,193	4,218	2,728	1,922	983	2,108	92,866	32,215	1,25,081
Indapur	1,46,791	7,764	2,906	5,820	2,668	1,447	2,226	970	1,885	1,21,105	36,229	1,57,334
Haveli	1,33,627	7,864	14,804	3,962	2,477	9,808	--	4,967	17,865	71,880	14,157	86,037
Baramati	1,38,248	4,929	8,809	4,779	2,594	3,171	--	--	1,350	1,12,616	41,102	1,53,718
Purandhar	1,10,353	2,221	5,567	2,570	3,728	4,726	1,045	8,802	9,692	72,002	9,790	81,792
Bhor	89,234	12,260	15,644	1,696	174	20,168	1,238	995	1,336	35,723	3,755	39,478
Velha	49,955	10,796	2,940	1,890	805	1,022	530	70	--	31,902	3,171	35,073
Mulshi	1,03,931	16,725	11,075	6,532	816	2,029	340	2,404	--	64,010	11,641	75,651
Maval	1,13,135	32,736	1,152	6,731	908	4,110	330	3,088	3,159	60,921	2,466	63,387
<b>TOTAL</b>	<b>15,62,058</b>	<b>1,71,708</b>	<b>1,04,226</b>	<b>62,938</b>	<b>32,918</b>	<b>65,577</b>	<b>3,483</b>	<b>15,359</b>	<b>3,159</b>	<b>10,14,915</b>	<b>2,43,715</b>	<b>12,58,630</b>

**Note:** 1. All areas are in hectares.  
2. The values are taken in round figures hence the total of all figures does not match with the actual area.

**Source:** District Superintendent, Agriculture Office, Pune (2002).

**Table 20. Talukawise area under cultivation during Rabi season (1999-2000)**

Taluka	Nigerseed	Rabi Jowar	Wheat	Harbhara	Kardai	Area under cultivation	
						Total area	% to the area under cultivation
Haveli	146	1,327	4,132	178	1,661	14,710	5.58
Mulshi	43	1,305	1,925	768	67	7,448	2.82
Bhor	195	1,626	2,960	1,186	28	10,804	4.10
Maval	11	0	1,444	596	0	3,506	1.33
Velhe	410	1,602	542	215	0	5,323	2.02
Junnar	215	2,866	6,821	11,606	64	31,538	11.96
Khed	281	2,331	4,635	8,881	27	23,429	8.89
Ambegaon	425	2,238	5,693	512	45	17,314	6.57
Shirur	70	876	7,822	5,200	8,094	38,924	14.76
Baramati	0	760	13,771	6,906	1,392	38,752	14.70
Indapur	0	930	7,826	2,284	1,664	23,124	8.77
Daund	0	620	10,415	3,367	846	27,129	10.29
Purandhar	149	351	3,807	1,981	5,540	21,675	8.22
<b>Total</b>	<b>1,945</b>	<b>16,832</b>	<b>71,793</b>	<b>43,680</b>	<b>19,428</b>	<b>2,63,676</b>	<b>100</b>

**Note:** Area in hectare.

**Source:** District Agriculture Office, Pune (2002).

**Table 21. Talukawise area under cultivation during Kharif season (1999-2000)**

Taluka	Groundnut	Tur	Sugarcane	Rice	Cotton	Area under cultivation	
						Total area	% to the area under cultivation
Haveli	1,877	171	7,436	2,647	0	21,615	8.28
Mulshi	1,608	81	141	13,449	0	17,109	6.55
Bhor	2,641	229	511	7,569	0	14,331	5.49
Maval	2,441	101	102	14,423	0	19,711	7.55
Velhe	745	21	54	5,477	0	7,117	2.73
Junnar	7,543	416	7,102	5,516	0	35,638	13.65
Khed	16,425	451	24	6,489	0	40,289	15.43
Ambegaon	7,049	600	1322	4,993	0	22,935	8.78
Shirur	5,654	332	2165	0	0	16,302	6.24
Baramati	315	323	8,386	16	238	18,540	7.10
Indapur	175	690	6,261	0	109	14,470	5.54
Daund	333	316	13,525	16	0	28,364	10.86
Purandhar	993	162	602	1,079	29	4,651	1.78
<b>Total</b>	<b>47,799</b>	<b>3,893</b>	<b>47,631</b>	<b>61,674</b>	<b>376</b>	<b>2,61,072</b>	<b>100</b>

**Note:** Area is in hectare.

**Source:** District Agriculture Office, Pune (2002).

**Table 22. Soils of Pune District**

Soil Asso. No.	Surface Form	Parent Material	Soil Depth Class	Particle size class	Drainage class	Ground waterdepth	Surface texture	Slope class
<b>Western Ghats: North Sahyadri: Eastern hill slope and Narrow Valley</b>								
046	S	B	5	M	5	4	I	c
<b>Western Ghats: North Sahyadri: Dissected hills and Narrow Valley</b>								
061	D	B	1	L	5	4	I	g
062	D	B	1	C	6	4	C	e
<b>Western Ghats: North Sahyadri: Dissected hills with Esc. and Narrow Valley</b>								
075	D	B	1	K	7	4	I	e
076	D	B	0	P	6	4	C	e
077	D	WB	1	L	5	4	I	c
083	D	WB	2	C	5	4	C	b
<b>North Deccan: Maharashtra plateau: Summit and spurs</b>								
095	R	WB	1	L	5	4	I	b
096	R	WB	1	C	5	4	C	g
107	R	B	2	C	5	4	C	c
<b>North Deccan: Maharashtra plateau: Undulating land</b>								
110	U	B	1	K	6	4	I	c
114	U	B	0	P	6	4	C	e
115	U	B	1	L	5	4	I	c
116	U	B	1	L	5	4	I	c
117	U	B	1	L	7	4	I	e
118	U	B	0	L	5	4	I	c
120	U	B	1	L	5	4	I	d
122	U	B	2	L	5	4	I	c
126	U	B	3	K	5	4	I	c
133	U	B	4	F	4	4	C	b

Table 22. Soils of Pune District (...contd.)

Soil Asso. No.	Surface Form	Parent Material	Soil Depth Class	Particle size class	Drainage class	Ground waterdepth	Surface texture	Slope class
<b>North Deccan: Maharashtra plateau: Plains</b>								
143	G	B	2	K	5	4	I	b
144	G	A	1	K	5	4	I	a
146	G	B	2	L	4	4	I	c
148	G	A	4	F	5	4	E	c
149	G	A	4	F	5	4	C	c
150	G	A	5	M	5	4	I	b
151	G	B	2	C	5	4	C	c
155	G	A	5	F	4	4	C	b
157	G	A	5	F	4	4	C	c
<b>North Deccan: Maharashtra plateau: Undulating lands with mesas and buttes</b>								
175	U	B	1	K	6	4	C	c
176	U	B	3	F	5	4	I	c
<b>North Deccan: Lower Maharashtra plateau: Undulating lands</b>								
195	U	B	1	K	6	4	I	c
202	U	B	1	C	5	4	C	c
216	U	B	2	C	5	4	C	c
217	U	B	2	C	5	4	C	c



Table 22. Soils of Pune District (...contd.)

Soil Asso. No.	Surface Form	Parent Material	Soil Depth Class	Particle size class	Drainage class	Ground waterdepth	Surface texture	Slope class
<b>North Deccan: Lower Maharashtra plateau: Plains and valleys</b>								
236	V	A	5	F	5	4	C	c
241	V	A	5	F	5	4	C	c
243	V	A	4	F	4	4	C	b
244	V	B	3	F	4	4	C	b
248	V	B	2	F	4	4	C	c
254	V	A	5	F	4	4	C	b
259	V	A	5	F	4	4	C	b
266	V	A	5	V	4	4	C	c
<b>North Deccan: Lower Maharashtra plateau: Rolling lands with mesas and buttes</b>								
281	0	B	1	L	6	4	I	c

**Legend**

I : Surface form	II : Parent Material	III : Soil Depth		IV : Particle Size Class
G - Gently sloping U - Undulating R - Ridges S - Steep D - Dissected O - Rolling	B - Basalt WB - Weathered Basalt A - Alluvium	<b>Code Class</b>	<b>Depth (cm)</b>	K - Loamy skeletal P - Clayey skeletal L - Loamy M - Fine Loamy F - Fine C - Clayey V - Very fine
		0 Ext. Shallow	< 10	
		1 Very Shallow	10 - 25	
		2 Shallow	25 - 50	
		3 Mod. Shallow	50 - 75	
		4 Mod. deep	75 - 100	
		5 Deep	> 100	
V : Drainage Class	VI : Groundwater Depth	VII : Surface Texture		VIII: Slope (%)
4 - Moderately well	4 - Deep > 5 m	C - Clayey		b - Very gently sloping (1-3)
5 - Well		I - Loamy		c - Gently sloping (3-8)
6 - Somewhat excessive				e - Moderately steep sloping (15-30)
7 - Excessive				g - Very steeply sloping (>50)

**Source:** National Bureau of Soil Survey and Land Use Planning, Nagpur (2002).

**Table 23. Natural Drainage of Pune District**

River	Perennial / Seasonal	River Basin	Taluka through which the river flows	Watershed Number*	Prominent Land Use / Features	Irrigation Projects
Nira	Perennial	Nira	Bhor	NBA 1a to NBA 2i	Forest and Wasteland	Ambeghar Dam, Nira Devghar Dam
Welvand, Nira	Perennial	Nira	Bhor	NBA 3a to NBA 4e	Forest and Wasteland	Bhatghar Dam
Ganjauni	Perennial	Nira	Velhe	NBA 4f to NBA 5d(ii)	Forest	Chirmodi Dam, Ganjauni Dam
Nira	Perennial	Nira	Purandhar	NBA 6a to NBA 6f	Forest, Wasteland, Single crop	Vir Dam
Karaha, Nira, Bhima	Perennial	Nira	Purandhar, Baramati, Indapur	NBA 8a to NBA 8z	Waste land, Single crop, Double crop	Nazare Dam
Nira	Perennial	Nira	Baramati, Purandhar	NBA 7a to NBA 7e	Waste land, Single crop, Double crop	--
Mula, Mutha, Mula-Mutha, Pavna	Perennial	Bhima	Mulshi, Velhe, PuneCity, Baramati, Haveli, Daund, Indapur	BBB 1a to BBB 1z(iv); BBB 2a to BBB 2p; BBB 3a to BBB 3b(i); BBB 4a to BBB 4k	Forest, Wasteland, Settlement, Single crop, Double crop	Ujjani Dam, Kasarsai project, Veer Baji Pasalkar Dam, Tanajisagar Dam, Pavna Dam
Indrayani, Bhima, Andhra	Perennial	Bhima	Maval, Haveli	BBB 5a to BBB 5j; BBC 1a to BBC 1j	Forest, Wasteland, Single crop	Andhra Dam, Vadivale dam
Bhama, Bhima	Perennial	Bhima	Haveli, Shirur	BBC 2a to BBC 2t	Forest, Wasteland, Single crop	Bhama Aarkhed Dam, Chaskaman Dam, Kalmodi Dam
Ghod, Vel	Perennial	Bhima	Khed, Haveli, Shirur	BBC 3a to BBC 3r	Forest, Wasteland, Single crop, Double crop	Dimbhe Dam
Mina, Ghod	Perennial	Bhima	Junnar, Shirur	BBC 4a to BBC 4l	Forest, Wasteland, Single crop, Double crop	Vadaz Dam
Kukadi, Aar, Pushpavati	Perennial	Bhima	Junnar	BBC 5a to BBC 5i	Forest, Wasteland, Single crop, Double crop	Pimpalgaon Dam, Manikdoh Dam, Yedgaon Dam, Chilvadi Dam

**Source:** 1) Irrigation Department, Pune (2002)  
 2) Land Use and Land cover Map, MRSAC, Nagpur (2001-02).  
 3) \* : Data from Drainage and Watershed Map (Map No.9).

**Table 24. Major and Medium Irrigation Projects (completed and under construction) in Pune District**

Sr. No.	Project Name	Nearest Village location	Height	Submerged Area	Usable water storage	Irrigation Potential	Talukawise irrigation potential	
			(m)	(km <sup>2</sup> )	(TMC)	(ha)	(ha)	
<b>1.</b>	<b>Completed</b>							
<b>a)</b>	<b>Major Irrigation Projects</b>							
	1. Pavana	Fagane, Tal. Maval	38.10	2365	274.13	6364	Maval	6364
	2. Bhatghar	Bhor, Tal. Bhor	56.39	3792	665.60	47540	Purandhar	830
							Baramati	16543
							Indapur	30167
	3. Ghod	Chinchni Tal. Shirur	30.50	2878	154.80	20500	Shirur	6190
<b>b)</b>	<b>Medium</b>							
	4. Nazare	Nazare, Tal. Purandhar	22.50	3195	10.50	3195	Purandhar	1972
							Baramati	1223
	5. Pushpawati	Netvad Tal. Junnar	8.80	--	--	1629	Junnar	1629
<b>2.</b>	<b>Under Construction</b>							
<b>a)</b>	<b>Major Irrigation Projects</b>							
	6. Khadkwasala Project	Panshet, Varsgaon, Tal. Velhe	63.40	2420	275.00	62150	Haveli	5782
							Daund	28055
							Baramati	980
							Indapur	27333
	7. Chaksman	Karhewadi, Tal. Khed	46.28	1920	214.50	34794	Khed	8283
							Shirur	35887
	8. Kukdi	Manikdoh	50.38	2058	288.10	2424	Shirur	13837
		Yedgaon Tal. Junnar	23.60	1248	79.276	1678		
		Dimbhe Tal. Ambegaon	67.65	2202	353.75	41328	Ambegaon	15418
		Wadaj, Tal. Junnar	26.42	611	3.11	3815		
		Pimpalgaon Joge Tal. Junnar	27.57	2540	92.65	7125	Junnar	27115

Table 24. Major and Medium Irrigation Projects (completed and under construction) in Pune District ( ...contd.)

Sr. No.	Project Name	Nearest Village location	Height	Submerged Area	Usable water storage	Irrigation Potential	Talukawise irrigation potential	
	9. Nira Devdhar	Devghar, Tal. Bhore	58.525	1450	332.13	41400	Bhore	
	10. Bhama Ashkhed	Karanjuihire Tal.Khed	51.125	1524	200.50	23110	Daund	7435
							Khed	9088
							Haveli	6587
b)	11. Gunjavani Tappa No.1	Chopate Tal. Bhore	52.825	641	104.48	15000	Velhe	410
							Bhore	6060
							Purandhar	8530
							Mulshi	11800
	12. Temghar	Vegare Tal.Velhe	72.50	484	105.01	1000	Baramati	10,335
	13. Janai-shirsai Lift Irrigation scheme	Daund, Tal.Daund	--	--	--	12000	Purandhar	2000
							Daund	1500
							Purandhar	15250
	14. Purandhar Lift Irrigation scheme	Purandhar Tal.Purandhar	--	--	--	25100	Daund	4350
							Haveli	500
Baramati							5000	
<b>b) Medium Irrigation Projects</b>								
15. Kasarsai	Kasarsai Tal.Mulshi	29.10	217.35	17.377	3036	Mulshi	2684	
						Maval	352	
16. Vadivale	Vadivale Tal.Maval	27.20	4068	30.38	5000	Maval	3216	
						Khed	292	
						Haveli	1492	
17. Andhra Khore Project,	Manglur Tal. Maval	35.00	915.00	82.69	8595	Haveli	5870	
						Maval	1571	
						Khed	1154	
18. Kalmodi (Arla)	Khed Tal.Khed	36.80	--	42.87	5065	Khed	1625	
						Ambegaon	3440	
19. Chilewadi	Tal.Junnar	--	--	--	6818	Junnar	6372	
20. Mulshi	Tal.Mulshi	--	--	--	5000	Mulshi	5000	

Source: Chief Engineer, Irrigation Department- Pune (2002)

**Table 25. Minor Irrigation Projects in Pune District**

Taluka covered	Completed Project			Project Under Construction			Proposed Project ( Upto March 2000)		
	No. of projects	Usable water storage	Irrigation Potential	No. of projects	Usable water storage	Irrigation Potential	No. of projects	Irrigation Potential	Estimated Cost
		(TMC)	(Ha)		(TMC)	(Ha)		(Ha)	(Lakhs)
Ambegaon	18	40.846	8158	--	--	--	15	3800	1550
Baramati	27	70.294	9939	1	1.857	275	2	400	100
Bhor	16	20.233	4519	2	4.007	645	5	900	400
Daund	14	72.895	12026	--	--	--	1	---	---
Haveli	11	42.713	8788	--	--	--	4	1000	400
Indapur	18	69.724	9675	2	6.976	1530	2	400	100
Junnar	20	27.866	5801	11	15.429	2716	6	6050	2912
Khed	28	48.040	9713	1	1.314	102	4	---	---
Maval	10	8.765	2817	3	20.235	2309	2	500	200
Mulshi	27	46.133	8758	5	9.090	1494	6	100	400
Purandhar	12	16.868	5197	5	4.498	809	12	1200	600
Shirur	25	61.881	14199	8	13.326	2321	5	800	200
Velhe	10	8.298	2196	--	--	--	2	400	200
<b>TOTAL</b>	<b>236</b>	<b>534.556</b>	<b>101786</b>	<b>38</b>	<b>70.868</b>	<b>11281</b>	<b>66</b>	<b>16450</b>	<b>7062</b>

*Source: Chief Engineer- Irrigation Department- Pune (2002)*

**Table 26. Classification of Nira River Basin / Sub Basin**

Sr. No.	Name of the River	A-I Class	A-II Class	A-IV Class
1.	Nira	Origin to Devghar dam	Devghar dam to Vir dam	Vir dam to confluence with Bhima
2.	Kanaad River (including Yelwadi river)	Origin to Bhatghar dam	--	---
3.	Ganjwani River	---	Origin to confluence with Nira	---
4.	Karha River	---	Origin to confluence with Nira	---

Source: MPCB, Mumbai (2002).

**Table 27. Classification of Upper Bhima River Basin**

Sr.No.	Name of the River	A-I Class	A-II Class	A-IV Class
1.	Pushpawati River	Origin to Pushpawati Bandara	Pushpawati Bandara to confluence with Kukadi	---
2.	Aar River	Origin to Pimpalgaon dam	Pimpalgaon dam to confluence with Pushpawati river	---
3.	Kukadi River	Origin to Manikdoh dam	Manikdon dam to confluence with Ghod river	---
4.	Mina River	Origin to Waduj dam	Waduj dam to confluence with Ghod river	---
5.	Ghod river	Origin to Dimbhe dam	Dimbhe dam to confluence with Bhima river	---
6.	Vel River	--	Origin to confluence with Bhima river	---
7.	Bhima River	Origin to Chaskaman dam	Chaskaman dam to confluence with Mira river	---
8.	Bhama River	Origin to Askheda dam	Askheda dam to confluence with Bhima river	---
9.	Andhra River	Origin to Vadivale dam	Vadivale dam to confluence with Indrayani river	---
10.	Kundali River	Origin to Shirwati dam	Shirwati dam to confluence with Indrayani river	---
11.	Indrayani River	Origin to Lonavala dam	Lonavala dam to confluence with Bhima river	---
12.	Pawana River	Origin to Pawana dam	Pawana dam to Ravet weir	Ravet weir to confluence with Mula
13.	Mula River	Origin to Mulshi dam	Mulshi dam to Wakad Bandhara	Wakad Bandhara to confluence with Mutha river
14.	Mutha River	Origin to Khadakwasla dam	Khadakwasla dam to Vithalwadi weir	Vithalwadi weir to confluence with Bhima river

Source: MPCB, Mumbai (2002).

**Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District**

**1. Ambegaon Taluka**

<b>Name of Project</b>	<b>Villages covered</b>	<b>Source</b>
<b>A) Completed projects</b>		
Kanase	Kanase	Percolated well
Giravali	Giravali	Percolated well
Manchar	Manchar	Sultanpur weir
Peth	Peth	Percolated well Nr. Indira Lake
Nagapur	Nagpur	Percolated well on the bank of River Mina
Shingave	Shingave	Percolated well on the bank of River Ghod
Pargaon-Poundhewadi	1)Pargaon 2)Poundhewadi	Percolated well on the bank of River Ghod
Rajapur-Taleghar	1)Rajapur 2)Taleghar 3)Falode	Percolated well near Rajapur
Pokhari	1)Gohe-Bk 2)Chikhali 3)Jambhori 4)Pokhari 5)Rajewadi	Dimbhe Dam
<b>B) Under Construction</b>		
Khadaki-Thorandale	1)Khadaki 2)Thorandale	Percolated well near K.T. weir Chandoli on Ghod River

**2. Khed Taluka**

<b>Name of Project</b>	<b>Villages covered</b>	<b>Source</b>
<b>A) Completed projects</b>		
Dhekulshet (Kanhersar) WSS	--	Percolated well
Thakarwadi (Kanhersar) WSS	--	Percolated well
Satkarsthal WSS	--	Jack well (Bhima River)
Ranmala WSS	--	Percolated well
Rajgurunagar WSS	--	Jack well (Bhima River)
Chakan WSS	--	Jack well (Bhima River)

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

Khed Taluka ...contd.

Name Project	Villages covered	Source
<b>B) Under Construction</b>		
Kadus Sub-regional WSS	1) Kadus 2) Vetale 3) Saygaon 4) Dode 5) Chandoli 6) Vadgaon-Patole 7) Shirol 8) Holiwadi 9) Nimgaon 10) Takalkarwadi 11) Jaulake-Kh. 12) Rakshewadi 13) Jarewadi 14) Vakalwadi 15) Gulani 16) Gosasi 17) Wafgaon 18) Jaulake-Bk. 19) Kadadhe 20) Kanhewadi 21) Mohkal 22) Chas 23) Kaman- (Thakarwadi) 24) Buttewadi 25) Pangari 26) Padali (Kalechiwadi) 27) Bahirwadi 28) Kohinkarwadi 29) Sandbhorwadi 30) Wada	Jack well (Chaskaman Dam)
Varude water supply scheme	--	Kadus water supply scheme under Wafgaon over head tank

--: Not available

### 3. Bhor Taluka

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Vadtumbi, Korale, Titeghar Sub-regional WSS	1)Vadtumbi 2)Korale 3)Titeghar	Mahakoshi Dam
Kiwatbare Basarapur Sub-regional WSS	1)Basarapur 2)Sangavi 3)Yevale 4)Bare-Kh 5) Bare-Bk 6)Kiwat	Bhatghar Dam
Mahude-Kh Sub-regional WSS	1)Mahude-Kh 2)Bramhanghar 3)Malwadi-Mahude-Kh	Percolated well
Karnwadi-Mhalwadi Sub-regional WSS	1)Karnwadi 2)Mhalwadi	Kivatbare-Basarapur (Bhatghar Dam at Bare)
<b>B) Under Construction</b>		
Mahude-Bk Bhanusdara Sub-regional WSS	1)Mahude-Bk Bhanusdara	Jack well
Devghar Nighutghar Sub-regional WSS	1)Devghar 2)Nighutghar 3)Karanjgaon	Jack well
Kari Angasule Sub-regional WSS	1)Kari 2)Angasule	Jack well
Shind water supply scheme	Shind	Kivatbare-Basarapur Sub-regional WSS of Bhatghar Dam under gravitational



Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**4. Velhe Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Velhe-Kh and Velhe-Bk Sub-regional WSS	1)Velhe-Kh 2)Velhe-Bk	Jack well
Vinzar Hirpodi Sub-regional WSS	1)Vinzar 2)Hirpodi	Jack well
<b>B) Under Construction</b>		
Dhanep Antroli Sub-regional WSS	1)Dhanep 2)Antroli	Jack well

**5. Haveli Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Perane	--	Percolated well near Perane Village Right side on the bank of Bhima river
Pimpari sandas	--	
Hingangaon	--	
Undri Pisoli	--	Main Pipe line of PMC on the Pune-Solapur Highway at Lohiya garden
Bopkhel	--	Overhead tank of Pimpri Chinchwad Municipal Corporation at Bhosari
Bhairavnagar-Dhanori	--	Gravitational pipe line of PMC on Pune Alandi Road
Manerwadi	--	Percolated well near Khanapur village
Ambegaon-Bk	--	Percolated well near Ambegaon
Donaje	--	Percolated well near Gore-Bk village
<b>B) Under Construction</b>		
Shindavane	--	New Mutha right bank canal under Khadakwasala project
Katraj	1)Katraj 2)Santoshnagar	PMC
Manjari	Manjari	Jack well, percolated well
Waraje	1)Waraje 2)Malwadi	Jack well
Wagholi	1)Wagholi 2)Charholi 3)Dighi 4)Kalas 5)Vidyanagar 6)Dhanori 7)Lohgaon 8)Karadi 9)Chandnagar 10)Vadgaon-sheri	Ravet tank, Jack well

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**6. Maval Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Sangavade	Sangavade	Percolated well near Indrayani River
Gahunje	Gahunje	Percolated well
Yelase	Yelase	Percolated well
Godumbe	Godumbe	Percolated well
Kothurne	Kothurne	Percolated well
Naane	Naane	Percolated well
Karla	1)Karla 2)Vehergaon 3)Vaaksai 4)Devghar 5)Karandoli 6)Jevarewadi 7)Malavali 8)Shilatane	Valvan Dam
Patan	1)Patan 2)Dudhivare 3)Audholi 4)Aude-Kh 5)Sadapur 6)Devale 7)Bhaje 8)Boraj	Pavana Dam Jack well
Kambra	Kambre	Percolated well
Kurwande	Kurwande	I.N.S. Shivaji Dam
Baur	Baur	Percolated River near Pavana River
Mahagaon	Mahagaon	Pavana River
Aarvi	Aarvi	W.T.P. of Mangrul
Karunj-Bedase	Karunj-Bedase	Pavana River Jack well
Ghonshet	1)Ghonshet 2)Kacharewadi	Pavana River Jack well
Kashal Bhoysare Regional WSS	1)Kashal 2)Bhayare 3)Kalhat 4)Pawalewadi 5)Kondivade	Valvan Tata Dam
Tikona Regional WSS	1)Tikona 2)Bhalvedi 3)Kivale 4)Hule 5)Thakursai	Indrayani River Jack well
Karanjgaon Kondivade Regional WSS	1)Karanjgaon 2)Kondivade	Vadavale Dam
Shivali	1)Shivali 2)Yelghol 3)Dhangavhan	Pawana River

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

Maval Taluka ...contd.

Name Project	Villages covered	Source
<b>B) Under Construction</b>		
Chikhalse Regional WSS	1)Chikhalse, 2)Kusgaon-Kh, 3)Ahirwade, 4)Sate, 5)Mohitewadi, 6)Bramhanwadi	Jack well on Pawana River near Baur
Bebad Oohol Water Supply scheme	--	Jack well on Pawana River
Khadkale Pathargaon Regional WSS	1)Khadakale, 2)Kamshet, 3)Pathargaon, 4)Pimploli, 5)Taje	Jack well on Indrayani River
Vadgaon (Maval) Water Supply scheme	--	Jack well
Somatane Regional WSS	1)Somatane, 2)Shirgaon, 3)Urse, 4)Parandwadi	Jack well on Pawana River near Somatane
Kusgaon	--	Kasarsai Dam, Percolated well
Done Aadale Regional WSS	1)Done, 2)Aadale-Kh, 3)Aadale-Bk, 4)Chandkhed, 5)Pusane	Jackwell on Pawana River near Baur
Khandi	Khandi	Tata Dam (Dhokalwadi)
Mangrul Aambale	1)Mangrul Aamble, 2)Mindewadi, 3)Jadhavwadi, 4)Badhachiwadi, 5)Navlakh, 6)Umbre	Jack well on Indrayani River
Mau Vadeshwar	Mau Vadeshwar	Tata Dam (Dhokalwadi)
Lonavala Nagari	--	Valvan Dam
Talegaon-Dabhade	--	Jack well on Pawana River

## 7. Junnar Taluka

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Varulwadi	Varulwadi	Percolated well
Narayangaon	Narayangaon	Jackwell (Yedgaon Dam)
Vadgaon Kandali	Vadgaon Kandali	Percolated well
Vadaj	--	Percolated well
Aarvi-Gunjawadi	1)Aarvi, 2)Gunjalwadi	Percolated well
Ozar WSS	Ozar	Percolated well
Ballalwadi	Ballalwadi	Percolated well
Manjarwadi	Manjarwadi	Jack well

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

## Junnar Taluka . ...contd.

Name Project	Villages covered	Source
Belhe Regional WSS	1)Umbraj No.1, 2) Umbraj No.2, 3)Khamundi, 4)Pimpri-Pendhar, 5)Vadgaon Anand, 6)Rajuri, 7)Aale, 8)Pemdara, 9)Kalewadi, 10)Nalavane, 11)Belha	Jack well on Yedgaon Dam
<b>B) Under Construction</b>		
Yenere Regional WSS	1)Yenere, 2)Chincholi, 3)Tambe, 4)Katede, 5)Datkhilwadi, 6)Buchkewadi, 7)Kale, 8)Parunde	Jack well on Vadaj Dam
Ralegan-Hivare Regional WSS	1)Ralegan, 2)Hiware-Minher	Percolated well
Otur Wadya scheme	Otur Wadya	Jack well on Yedgaon Dam
Junnar	Junnar	Jack well on Kukadi River
Alandi WSS	Alandi	Indrayani River (K.T. weir)

## 8. Shirur Taluka

Name Project	Villages covered	Source
<b>A) Completed projects</b>		
Talegaon Dhamdhere	1)Talegaon Dhamdhere	K.T. weir on well river
Chincholichya Wadya	--	Percolated well
Malthan	1)Malthan, 2)Lakhewadi	Percolated well on the bank of Ghod River
Nhavuda	1)Nhavuda, 2)Uralgaon, 3)Nirvi, 4)Gunat	Ghod Dam Jack well
Jambut	1)Jambut, 2)Saradwadi, 3)Chandoh, 4)Fakate	K.T. weir, Jack well on Kukadi River
Karandi	Karandi	Chaskaman left bank canal
Shirur	Shirur	K.T. weir on Ghod River

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**9. Baramati Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Karkhol	1)Kharadewadi, 2)Undavadi-KP, 3)Jaradwadi, 4)Sonwadi-Supe, 5)Undavadi-Supe, 6)Shirsuphal, 7)Sabalewadi, 8)Parwadi, 9)Devulgaon-Rasal, 10)Karkhol	Jack well and Pump house in Shirsuphal Lake
Mekhali Songaon	1)Zargadwadi, 2)Dorlewadi, 3)Songaon, 4)Mekhali	Storage tank near Nira left bank canal
Pimpali Limtek	Pimpali-Limtek	Percolated well
Sastewadi(Hol)	Sastewadi	Percolated well near Nira Left bank canal
Murto	Murto	Percolated well near Modhava tank
Morgaon Regional WSS	1)Nepatvalan, 2)Barhanpur, 3)Bhondavewadi, 4)Supe, 5)Karhati, 6)Jalgaon, 7)Jalgaon-Supe, 8)Karahavagaj, 9)Anjangaon 10)Ambi-Bk, 11)Ambi-Kh, 12)Tardola, 13)Loni-Bhapkar 14)Morgaon	Jack well and Pump house in Nazare tank
Modhave	Modhave	Percolated well near Modhave tank
Mudhale	Mudhale	Percolated well near Nira left bank canal
Jalochi	Jalochichya Wadya	Percolated well near Nira Left bank canal
Baburdi	Baburdi	Percolated well near Tardoli percolated tank
Baramati	Baramati	Jack well and Pump house near Kumbhargaoon Ujani tank

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**10. Purandhar Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Saswad	Saswad	Ghorawadi Dam
Jejuri	Jejuri	Nazare Dam
Nira	Nira	Nira River
Shivari Regional WSS	1)Shivari, 2)Khalad, 3)Sakurde, 4)Valunj, 5)Nilunj, 6)Ekhatpur	Pilanwadi Dam
Nazare Regional WSS	1)Nazare, 2)Nazare-Supe, 3)Javalanjun, 4)Pandeshwar	Nazare Dam
Bandalwadi	Bandalwadi	Percolated well
Dhankawadi	1)Dhankawadi, 2)Davanewadi, 3)Mandhar	Percolated well near Madur tank
Pingori Regional WSS	1)Pingori, 2)Aadachi wadi	Pingori Minor Irrigation tank
Pargaon-Malshiras Regional WSS	1)Pargaon, 2)Malshiras, 3)Pisarve, 4)Mavadi- Supe, 5)Naygaon, 6)Rajuri, 7)Rise, 8)Pise, 9)Rajewadi, 10)Tekwadi, 11)Aambale, 12)Pondhe 13)Singapur, 14)Gurholi, 15)Vaghapur,	Nazare Dam
Rakh-Gulunche Regional WSS	1)Rakh, 2)Gulunche, 3)Pimpra, 4)Thopatewadi, 5)Karnalwadi, 6)Vaghadarwadi, 7)Sukalwadi	Nira River
Kolvihire Mavadi Regional WSS	1)Kolvihire, 2)Mavadi	Nazare Dam
Dive Regional WSS	1)Dive, 2)Sonori, 3)Vanpuri, 4)Udachiwadi, 5)Pawarwadi, 6)Jadhavwadi, 7)Zendewadi	Ghoravadi Dam
Supe Regional WSS	1)Supe, 2)Pimpale, 3)Bhivadi, 4)Narayanpur, 5)Narayanpeth	Ghoravadi Dam

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**11. Daund Taluka**

<b>Name of Project</b>	<b>Villages covered</b>	<b>Source</b>
<b>A) Completed projects</b>		
Swami-Chincholi Regional WSS	1)Swami Chincholi, 2)Khadaki, 3)Rajegaon, 4)Naygaon, 5)Vatluj, 6)Malthan, 7)Hingani-Berdi, 8)Devulgaon Raje	Ujani Dam
Vasunde Regional WSS	1)Vasunde, 2)Kothadi, 3)Roti, 4)Hingani Gada, 5)Jiregaon, 6)Patas	Varvad Dam
Devulgaon Gada	1)Devulgaon Gada	Percolated well near Janai Lift Irrigation
Bharatgaon Dalimb Regional WSS	1)Bharatgaon, 2)Dalimb, 3)Tamhanwadi	New Right Mutha Canal
Kangaon WSS	1)Kangaon	Water purification center of Vasunde WSS
Kusegaon WSS	Kusegaon	Water purification center of Vasunde WSS
Panvali Regional WSS	1)Panavali, 2)Vadgaon Bande, 3)Takali Bhima	K.T. weir on Bhima River
Sonvadi Nanvij Regional WSS	1)Sonvadi, 2)Nanvij	Water purification center of Daund WSS
Nangaon Ganesh Road Regional WSS	1)Nangaon, 2)Ganesh Road	Bhima River
Gopalwadi-Lingali Regional WSS	1)Gopalwadi, 2)Lingali, 3)Malwadi, 4)Khotodi, 5)Masanarwadi	Water purification center of Daund WSS
Malad Regional WSS	1)Malad, 2)Kurkumbh, 3)Pandharewadi, 4)Ravangaon	Balancing Water tank of Daund WSS

Table 28. Talukawise Public Water Supply Schemes from Surface and Ground Water in Pune District (...contd.)

**12. Indapur Taluka**

Name of Project	Villages covered	Source
<b>A) Completed projects</b>		
Indapur Public WSS	Indapur	Jack well, pump house at Ujani dam near Malvadi village
Bhigvan WSS	Bhigvan	Old Railway bridge near Ujani dam
Zagadewadi WSS	Zagadewadi	Percolated well near Tarangwadi tank
Nhavi WSS	Nhavi	Percolated well near Nhavi WSS
Bhodani WSS	Bhodani	Percolated well near Shetphal tank
Vakilvasti WSS	Vakilvasti	Percolated well near Shetphal tank
Varkute-Bk WSS	Varkute-Bk	Percolated well near Ujani dam
Kadbanwadi WSS	Kadbanwadi	Percolated well near Nira Left bank canal
Lakhewadi WSS	Lakhewadi	Percolated well near Shetphal tank
Uddhat WSS	1)Uddhat, 2)Jamb, 3)Chavanvasti, 4)Kuravali, 5)Chikhali, 6)Mankarwadi, 7)Pawarwadi, 8)Thoratwadi, 9)Udmaiwadi, 10)Gholapwadi, 11)Tawashi	Storage tank near Nira Left bank canal
Nimgaon-Loni Regional WSS	1)Loni-Devkar, 2)Balpudi, 3)Kauthali, 4)Byahali, 5)Nimgaon Ketaki, 6)Tarangwadi, 7)Gokhali	Ujjani dam
Saradewadi Regional WSS	1)Saradewadi, 2)Galandwadi no.2, 3)Bedshing, 4)Avasari, 5)Vadpuri, 6)Vitthalwadi	Ujjani dam
Shetphal Regional WSS	1)Shetphal-Haveli, 2)Survad, 3)Varkute-Kh, 4)Gotondi, 5)Kato	Ujjani dam
Shirsodi Regional WSS	1)Shirsodi, 2)Malwadi no.1, 3)Kalthan no.2	Ujjani dam
Gagargaon Regional WSS	1)Gagargaon, 2)Bijvadi, 3)Rajwadi	Ujjani dam

**Source:** Superintending Engineer, Maharashtra Jeevan Pradhikaran, Pune ( 2002-03)



**Table 29. Hydrogeomorphology in Pune District**

Sr. No.	Mapping Unit / Geomorphic Unit	Lithology/ Taxonomy	Description	Area in 1000 ha (%)
1.	Western Ghat: North Sahyadri-eastern hill slope and narrow valley (046)	Fine loamy, mixed, isohyperthermic, udle, rhodustalfs, loamy, mixed, isohypothermic, shallow, typic ustropepts	Very deep, well drained loamy soils of gently sloping narrow valleys with moderate erosion; associated with shallow well drained, loamy soils on moderately sloping hill slopes and narrow valley with very serve erosion and moderate stoniness	52.68 (0.171)
2.	Western ghat-North Sahyadri-dissected hills and narrow valley (061)	Loamy, mixed, isonypothermic, lithic, ustorthents. Clayey, mixed, isohypothermic, lithic, ustorthents	Very shallow, well drained, loamy soils on very steeply sloping dissected hills/narrow valleys with very serve erosion, associated with very shallow well drained, clayey soil with serve erosion	46.24 (0.150)
3.	Western ghat-North Sahyadri-dissected hills & narrow valley (062)	Clayey, mixed, isohypothermic, shallow, lithic, typic, ustorthents	Very shallow, somewhat excessively drained clayey soils on moderately steeply sloping dissected hills/narrow erosion and moderate stoniness.	84.03 (0.273)
4.	Western ghat-North Sahyadri-dissected hills with ESC & narrow valley (075)	loamy-sketal, mixed, isohyperthermic, lithic shallow typic, ustrothents	Very shallow excessively drained, loamy soil on moderately steeply sloping highly dissected exarpents of north Sahyadri with serve erosion; associated with shallow well drained loamy soils with moderate erosion	68.63 (0.223)
5.	Western ghat-North Sahyadri-dissected hills with ESC & narrow valley (076)	Clayey-skeletal, mixed, isohypothermic, lithic, calcareous, ustrothents	Extremely shallow, some what excessively drained, clayey soil on moderately steeply sloping highly dissected hill ranges with exarpments and narrow valley with serve erosion and strong stoniness; associated with very shallow, some what excessively, drained, clayey calcareous	41.21 (0.133)
6.	Western ghat-North Sahyadri-dissected hills with ESC & narrow valley (077)	Loamy-skeletal, mixed, isohypothermic, lithic, calcareous, ustrothents	Very shallow, some what excessively drained, clayey soil on moderately steeply sloping highly dissected hill ranges with exarpments and narrow valley with serve erosion	260.02 (0.845)
7.	Western ghat-North Sahyadri-dissected hills with ESC & narrow valley (083)	Loamy-skeletal, mixed, isohypothermic, lithic, calcareous, ustrothents	Shallow well drained, clayey soils on moderately, sloping highly dissected hill ranges on north Sahyadri with moderate erosion; associated with slightly deep, moderately well drained, clayey soils with moderate erosion	91.84 (0.298)
8.	North Deccan-Maharashtra Plateau-Summits and spors (096)	Loamy-skeletal, mixed, isohypothermic, lithic, calcareous, ustrothents	Very shallow, well drained, loamy soils on very gently summits, spors of upper plateau with moderate erosion; associated with shallow moderately well drained, loamy soils with moderate erosion	16.34 (0.053)
9.	North Deccan-Maharashtraateau-Summits and spors (107)	Clayey, montmorillonitic, calcareous, isohypothermic, shallow, typic, vertic, ustropepts	Shallow well drained, clayey, calcareous soil, on gently sloping summits, spur with moderate erosion; associated, fine, calcareous, soil with moderate erosion	6.74 (0.021)

Table 29. Hydrogeomorphology in Pune District (...contd.)

Sr. No.	Mapping Unit / Geomorphic Unit	Lithology/ Taxonomy	Description	Area in 1000 ha (%)
10.	North Deccan-Maharashtra Plateau-Undulating land (110)	Clayey, montmorillonitic, calcareous, isohypothermic, shallow, typic, vertic, ustropepts	Very shallow some what excessively drained, clayey soil on moderately steeply sloping highly dissected hill ranges with exarpments and narrow valley with serve erosion and strong stoniness; associated with very shallow, some what excessively, drained, clayey culcoreous	68.60 (0.222)
11.	North Deccan-Maharashtra Plateau-Undulating land (114)	Loamy, montmorillonitic, calcareous, isohypothermic, shallow, typic, vertic, ustropepts	Extremely shallow, some what excessively drained, clayey soil on moderately steeply sloping highly dissected hill ranges with exarpments and narrow valley with serve erosion and strong stoniness; associated with very shallow, some what excessively, drained, clayey culcoreous	2.85 (0.009)
12.	North Deccan-Maharashtra Plateau-Undulating land (115)	Loamy, montmorillonitic, calcareous, isohypothermic, shallow, typic, vertic, ustropepts	Very shallow well drained, clayey, calcareous soil, on gently sloping summits, spur with moderate erosion; associated, fine, calcareous, soil with moderate erosion	197.69 (0.642)
13.	North Deccan-Maharashtra Plateau-Undulating land (116)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Very shallow loamy well drained, clayey, calcareous soil, on gently sloping summits, spur with moderate erosion; associated, fine, calcareous, soil with moderate erosion	1.17 (0.003)
14.	North Deccan-Maharashtra Plateau-Undulating land (117)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Very shallow excessively drained, loamy soil on moderately steeply sloping highly dissected exarpments of north Sahyadri with serve erosion; associated with shallow well drained loamy soils with moderate erosion	25.06 (0.081)
15.	North Deccan-Maharashtra Plateau-Undulating land (118)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Very shallow, well drained, loamy soils on very gently summits, spors of upper plateau with moderate erosion; associated with shallow moderately well drained, loamy soils with moderate erosion	204.11 (0.663)
16.	North Deccan-Maharashtra Plateau-Undulating land (120)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Very shallow well drained, loamy soil on moderately steeply sloping, hills with very serve erosion and moderate stoniness; associated with shallow well drained clayey soil with very serve erosion and moderate stoniness	1.46 (0.004)
17.	North Deccan-Maharashtra Plateau-Undulating land (122)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Shallow well drained, loamy soils on gently sloping undulating lands with moderate erosion associated with moderately deep moderately well drained, loamy soils with moderate erosion	11.06 (0.035)
18.	North Deccan-Maharashtra Plateau-Undulating land (126)	Loamy mixed calcareous, isohyperthermic, lithic, ustorthents	Slightly deep, somewhat excessively drained, loamy soils, on gently sloping undulating lands with serve erosion associated with slightly deep well drained, fine, calcareous soils with moderate erosion.	155.94 (0.506)
19.	North Deccan-Maharashtra Plateau-Undulating land (133)	Fine montmorillonitic calcareous, isohypothermic, type ustropepts	Moderately deep, moderately well drained, clayey, calcareous soils on gently sloping undulating lands with moderate erosion, associated with shallow, well drained loamy calcareous soil with slight erosion	19.53 (0.063)

Table 29. Hydrogeomorphology in Pune District (...contd.)

Sr. No.	Mapping Unit / Geomorphic Unit	Lithology/ Taxonomy	Description	Area in 1000 ha (%)
20.	North Deccan-Maharashtra Plateau-Plains (143)	Loamy skeletal mixed, calcareous isohypothermic lithic, typic ustorthents	Shallow well drained loamy calcareous soils on very gently sloping plain with moderate erosion associated with very shallow well drained loamy calcareous soils with moderate erosion	23.49 (0.076)
21.	North Deccan-Maharashtra Plateau-Plains (144)	Loamy skeletal mixed, calcareous isohypothermic lithic, typic ustorthents	Very shallow some what excessively drained loamy calcareous soils on gently sloping plain with moderate erosion associated with moderately deep; well drained fine, calcareous, soils with moderate erosion	95.58 (0.310)
22.	North Deccan-Maharashtra Plateau-Plains (146)	Loamy skeletal mixed, calcareous isohypothermic lithic, typic ustorthents	Shallow moderately well drained, loamy soils on gently sloping lands with moderate erosion associated with very shallow well drained loamy soils with moderate erosion	3.75 (0.012)
23.	North Deccan-Maharashtra Plateau-Plains (148)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Moderately deep well drained, fine soils on gently sloping narrow valleys with a slight erosion, associated with very shallow well drained, clayey soils with slight erosion	13.90 (0.045)
24.	North Deccan-Maharashtra Plateau-Plains (149)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Moderately deep well drained, fine soils on gently sloping narrow valleys with a slight erosion, associated with very shallow well drained, clayey soils with slight erosion	4.32 (0.014)
25.	North Deccan-Maharashtra Plateau-Plains (150)	Fine loamy, mixed calcareous, isohyperthermic, fluventic skleteal ustropepts	Deep well drained loamy calcareous soils on very gently sloping plain with slight erosion associated with slight deep loamy well drained calcareous soils with moderate erosion	31.17 (0.101)
26.	North Deccan-Maharashtra Plateau-Plains (151)	Fine loamy, mixed calcareous, isohyperthermic, fluventic skleteal ustropepts	Shallow well drained clayey soils on gently sloping lands with moderate erosion associated with deep moderately well drained fine calcareous soil with moderate erosion	261.91 (0.851)
27.	North Deccan-Maharashtra Plateau-Plains (155)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Deep well drained loamy calcareous soils on very gently sloping plain with slight erosion associated with slight deep loamy well drained calcareous soils with moderate erosion	109.35 (0.355)
28.	North Deccan-Maharashtra Plateau-Plains (157)	Fine loamy, mixed calcareous, isohyperthermic, fluventic skleteal ustropepts	Deep well drained loamy calcareous soils on very gently sloping plain with slight erosion associated with slight deep loamy well drained calcareous soils with moderate erosion	70.33 (0.228)

Table 29. Hydrogeomorphology in Pune District (...contd.)

Sr. No.	Mapping Unit / Geomorphic Unit	Lithology/ Taxonomy	Description	Area in 1000 ha (%)
29.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (175)	Loamy skeletal calcareous mixed isohyperthermic typic ustorthents	Very shallow some what excessively drained loamy, calcareous soil on gently sloping undulating lands with meesas and buttes with serve erosion associated with very shallow excessively drained loamy soils with very serve erosion and moderate stoniness	26.26 (0.085)
30.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (176)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Slightly deep, well drained fine calcareous soils on gently sloping undulating lands with meesas and buttes with serve erosion associated with very shallow excessively drained loamy soils with very serve erosion and moderate stoniness	152.91 (0.496)
31.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (195)	Loamy skeletal calcareous mixed isohyperthermic typic ustorthents	Very shallow some what excessively drained loamy, calcareous soil on gently sloping undulating lands with meesas and buttes with serve erosion associated with very shallow excessively drained loamy soils with very serve erosion and moderate stoniness	
32.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (202)	Clayey morilionitic isohyperthermic lithic ustrothents	very shallow well drained clayey soils on gently sloping undulating lands with moderate erosion associated with very shallow, well drained clayey soils with moderate erosion	211.77 (0.688)
33.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (216)	Clayey morilionitic isohyperthermic lithic ustrothents	Shallow well drained clayey moderately calcareous, soils on gently sloping lands with moderate erosion and moderate stoniness associated with slight deep well drained fine moderately calcareous soils with moderate erosion and moderate salinity	292.01 (0.949)
34.	North Deccan-Maharashtra plateau-undulating land with mesas and buttes (217)	Clayey morilionitic isohyperthermic lithic ustrothents	Shallow well drained clayey soils on gently sloping lands with moderate erosion associated with deep moderately well drained fine calcareous soil with moderate erosion	324.24 (1.053)
35.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (236)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Very deep well drained fine, calcareous soils on gently sloping plains and valleys with moderate erosion, associated with deep moderately, well drained clayey calcareous soils with moderate erosion	100.08 (0.325)
36.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (241)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Deep well drained, fine soils on gently sloping plains and valleys with slight erosion associated with shallow, some what excessively drained clayey soils with moderate erosion	10.49 (0.034)
37.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (243)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Moderately deep, moderately well drained clayey soils on very gently sloping plains and valleys with moderate erosion and slight salinity associated with deep moderately well drained clayey soils with moderate erosion	64.59 (0.209)

Table 29. Hydrogeomorphology in Pune District (...contd.)

Sr. No.	Mapping Unit / Geomorphic Unit	Lithology/ Taxonomy	Description	Area in 1000 ha (%)
38.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (244)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Slightly deep moderately well drained fine soils on very gently sloping plains and valleys with moderate erosion and moderate salinity associated with moderately deep well drained clayey calcareous soils with moderate erosion	388.87 (1.265)
39.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (248)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Shallow moderately well drained clayey soils on gently sloping plains and valleys with moderate erosion associated with moderately shallow moderately well drained fine soils with moderate erosion	12.19 (0.039)
40.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (254)	Fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Deep well drained, fine soils on gently sloping plains and valleys with slight erosion associated with shallow, some what excessively drained clayey soils with moderate erosion	36.73 (0.119)
41.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (269)	Loamy skeletal mixed isohyperthermic, shallow typic ustorthents	Extremely shallow somewhat excessively drained loamy soils on moderately sloping isolated hillocks and pediments with severe erosion and moderate stoniness, associated with very shallow some what excessively drained loamy soils with severe erosion and moderate stoniness	39.01 (0.126)
42.	North Deccan-Lower Maharashtra Plateau-Plains & Valleys (266)	Very fine montmorillonitic, isohypothermic, ventric lithic clayey mixed ustropepts	Deep moderately well drained strongly calcareous fine soils on gently sloping plains and valleys with moderate erosion associated with moderately deep moderately well drained fine, strongly calcareous soils with moderate erosion.	91.54 (0.297)
43.	Rolling lands with measas and buttes (281)	Loamy mixed isohypothermic lithic, calcareous ustorthents	Very shallow some what excessively drained loamy soils on gently sloping rolling lands with measas and buttes with serve erosion; associated with very shallow, well drained, loamy, calcareous soils on gently sloping lands with serve erosion.	225.88 (0.734)

**Source:** *Soils of Maharashtra-Report, National Bureau of Soil Survey and Land Use Planning, Nagpur.*

**Table 30. Details of Wildlife Sanctuaries in Pune district**

Sanctuary	Location	Area (sq. km)	Species	Prominent surrounding landuse / slope within 5 km	Village within 5 km
Bhimashankar Wildlife Sanctuary	Bhimashankar Tal. Khed	130.78	<b>Animals:</b> Panther, Mouse Deer, Jackal, Wolf, Wild Boar, Jungle rat, etc. The giant squirrel shekru is also found in this sanctuary.	<ol style="list-style-type: none"> <li>1. Area under reserve forest</li> <li>2. High Agriculture Use</li> <li>3. High Physiography Areas</li> </ol>	Bhimashankar, Gavandewadi, Khindeshwar, Guinde, Karughan, Nivgan, Pimpalgaon, Pimpalgaon-Joge, Wadgaon
			<b>Birds:</b> Peacock, Bulbul and parakeet, tuffed pochrrd, common porchard, red headed, pochard, coot, cormorant, showellar, pintail, spotbill duck, gull etc.		
			<b>Plants:</b> Babhul, Subabhul, Chandan, Bamboo, Amaltas, Jambhul, Iml, Palas, Vad, Bor, Shisham, Tendu, Umber, etc.		
			<b>Fruit Trees:</b> Mango, Coconut, Jackfruit etc.		
Mayureshwar Wildlife Sanctuary	Supe, Tal. Baramati	5.14	<b>Animals:</b> Chinkara, Hyena, Wolf, Jackal, Rabbit, Leopard, etc.	<ol style="list-style-type: none"> <li>1. Area under wastelands, Kharif and Double crop area</li> <li>2. Gently and Moderatly sloping area</li> </ol>	Tal.: Baramati Kalkhairewadi, Kutwalwadi, Bhondvewadi

**Source:** 1) Conservator of Forest, Pune (2002).  
 2) Dy. Conservator of Forest (Wild- Life), Pune (2002).  
 3) Pune Diary (2002).  
 4) Landuse and land cover Map, MRSAC-Nagpur (2001-02)

**Table 31. List of rare and threatened plant species in Pune district**

Category	Family	Botanical Name of Species	Taluka Location
Rare	--	--	In the forest and sanctuary area of talukas Junner, Ambegaon, Khed, Maval, Mulshi, Velhe, Bhor, Purandhar, Daund, Shirur and Baramati
Vulnerable	--	--	
Endangered	Amaranthaceae	<i>Achyranthes coynei</i>	
	Amaryllidaceae	<i>Pancratium sanctae-mariae</i>	
	Araceae	<i>Arisaema caudatum</i>	
	Asclepiadaceae	<i>Ceropegia huberi</i>	
		<i>Ceropegia lawii</i>	
		<i>Ceropegia maccannii</i>	
		<i>Ceropegia vincaefolia</i>	
	Asteraceae	<i>Blumea venkataramanii</i>	
		<i>Natothamnus sericeus</i>	
	Convolvulaceae	<i>Ipomoea clarkei</i>	
	Lamiaceae	<i>Leucas deodikarii</i>	
	Liaceae	<i>Dipcadi ursulae</i>	
	Poaceae	<i>Dichanthian compressum</i>	
		<i>Dichanthium panchganiensis</i>	
<i>Dichanthium woodrowii</i>			
Critically Endangered	Acanthaceae	<i>Dicliptera ghatica</i>	
	Apiaceae	<i>Pimpinella rollae</i>	
	Asclepiadaceae	<i>Bidaria khandalensis</i>	
		<i>Ceropegia evansii</i>	
		<i>Ceropegia muahabalei</i>	
		<i>Frerea indica</i>	
	Cyperaceae	<i>Cyperus pentabraceatus</i>	
		<i>Fimbristylis unispicularis</i>	
		<i>Eriocaulon santapau</i>	
	Eriocaulaceae	<i>Eriocaulon santapau</i>	
	Malvaceae	<i>Abutilon ranadei</i>	
	Poaceae	<i>Ischaemum bombaiensis</i>	
	Rubiaceae	<i>Neanotis sahyadrica</i>	

**Note** : Data not available.

**Source:** Botanical Survey of India (2002).

**Table 32. List of rare and threatened Fauna species in Pune district**

<b>Category</b>	<b>Animal Name / Species</b>	<b>Locations in Taluka</b>
<b>MAMMALIA</b>		In the forest and sanctuary area of talukas Junner, Ambegaon, Khed, Maval, Mulshi, Velhe, Bhore, Purandhar, Baramati, Daund and Shirur
i) Least concern: (Lower risk)	Jackal, Jungle Cat, Common Palm Civet	
ii) Vulnerable	Indian wolf, Desert fox, Panther, Leopard	
iii) Near Threatened (Lower risk)	Bengal fox, Leopard Cat, Desert cat, Small Indian civet, Indian Pangolin, Mouse Deer, Indian Gazelle or Chinkara	
<b>BIRDS</b>		
i) Endangered	Lesser adjutant, white spoonbill, Lesser falcon, Shaheen falcon, Great Indian Bustard, Indian skimmer, Great Pied Hornbill	
ii) Vulnerable	Large whistling teal, White bellied sea eagle, Osprey, Indian peafowl, Lesser florican	
<b>REPTILES</b>		
i) Vulnerable	Indian chamaeleon, Bengal monitor lizard	
ii) Near Threatened (Lower risk)	Indian cobra, Dhaman or Rat snake, Indian Russel's viper	
iii) Endangered	--	
iv) Critical	Poona mole skink	
v) Least concern (Lower risk)	Indian checkered keel back snake	
<b>AMPHIBIA</b>		
i) Vulnerable	Indirana beddomeii, Nyctibatrachus deccanensis, Limnonectes limnocharis, Melanobatrachus indicus , P. glandulosus	
ii) Endangered	Philautus bombayensis, N. humayuni	



Table 32. List of rare and threatened Fauna species and locations of occurrence in Pune district (...contd.)

Category	Animal Name / Species	Locations in Taluka
<b>INSECTA</b>		
i) Rare	The blue Nawab, The Painted Curtesan, The fluffy tit, The plane, The Malabar Banded peacock, The malabar Ravan, Malabar Banded shallow tail	
ii) Local	The small leopard	
iii) Not common	The double banded black crow	

**Note :** '-' Data not available.

**Source:** Zoological Survey of India (2002).

Table 33. Village Locations covered under different forest types in Pune District

Forest Type	Area (Sq.km)	Taluka	Village locations in Talukas
Degraded Forset	2095.77	Haveli	Khadakvasla, Kalyan
		Mulshi	Jamgaon, Sambhave, Walen, Khechare, Watunde, Devghar, Nive, Vadgaon, Warak, Vegre, Pimpri, Vandre, Bhambarde, Adgaon, Bhadas Bk., Valane, Male, Vitthalwadi, Mulshi Kh., Kolavade, Malegaon
		Bhor	Tambhad, Titeghar, Balawadi, Pale, Male, Shilimb, Rayari, Gorad Mhashivali
		Maval	Tikona, Ovale, Vehergaon, Kurvande, Shilimb, Inglun, Kalhat, Kusur, Dahivali, Malegaon Kh., Lonavala
		Velhe	Velhe Bk., Kadhve, Pabe, Sakhar, Ambavane, Kodavadi, Gunjavane, Vanjale, Kanand
		Khed	Kharpud, Gadad, Tokavade, Mandoshi, Bhorgiri, Wandre
		Ambegaon	Chikhali, Pokhari, Gohe Kh., Jambhori, Rajewadi, Nigdale, Kondhaval, Malin, Done, Patan, Ahupe, Apati, Asane, Borghar
Open Forset	497.53	Bhor	Gunjawane
		Maval	Tung, Ambegaon, Dhalewadi, Kale, Visapur, Aundhe
		Velhe	Singapur, Velhe

**Source:** Landuse and Landcover Map of MRSAC, Nagpur (2001-02).

Forest Type	Area (Sq.km)	Taluka	Village locations in Talukas
Reserved Forset	1598	Haveli	Dighi, Sinhgad
		Mulshi	Ambavane, Devghar, Pomgaon
		Bhor	Narhe, Sangamner, Malegaon, Mhalavadi, Kiwat, Kari, Korle, Vadtumbi, Mhasar Bk., Dapakeghar, Karandi Bk.
		Maval	Induri, Sawale, Khand, Ghonshet, Mau, Inglun, Kivale, Kashal, Belaj, Rajpuri, Ambi, Jambavade, Shire, Kusur, Malegaon Kh., Jambhul, Takave Bk., Ambale, Sai, Aundhe
		Velhe	Velhe Bk., Khambavadi, Pimpri, Meravane
		Khed	Vetale
		Ambegaon	Bhawadi, Sakore, Takewadi, Lauki, Thakarwadi
		Junner	Karanjale, Kolhewadi, Hadsar, Godre, Mandave, Mandarne, Khamgaon, Nalawane, Mankeshwar, Manjarwadi
Purandhar	Kaldari		

**Source:** SOI Toposheet No. 47E, 47I, 47J, 47N, 47F, 47O

**Table 34. Places of Tourist Attraction in Pune district**

Name of Tourist Place	Location	Type	General Description
1. Sinhgad	At: Donage Tal.Haveli	Historical	'Sinhgad', earlier known as "Kondhana" is the most prominent and popular fort in Pune. It is 25 km away from Pune on a hill 1290m high. Tanaji Malusare – Chh. Shivaji's trusted and brave general, fought a battle here all alone with the Mughal army. He fell dead while fighting in this place. On hearing of his death Chh. Shivaji said, "We won the fort but lost the lion" (" <i>Gad Ala Pan Sinh Gela</i> "), and so after his death Chh. Shivaji renamed this Kondana fort as "Sinhgad". Sinhgad can be easily sighted from any part of the city because of the Doordarshan Tower which has been erected on it.
2. Bhimashankar	Bhimashankar Tal. Khed	Religious	This is the place where the river <i>Bhima</i> originates. It is 125 kms by road from Pune on Pune-Rajguru Nagar-Mancher-Bhimashankar road. It is one of the 5 Jyotirlingas in Maharashtra. Nana Phadnis has built a Mahadev Temple here. Near Bhimashankar are the hills of Manmad. On these hills are the carvings of Bhootling, Amba-Ambika and Bhimashankar. These are Buddha style carvings. Gupt Bhimashankar origin of river Bhima, Sakshi Vinayak, Hanuman Lake etc. are the places to see here. The beauty of Bhimashankar is enhanced in monsoon and winter. Bhimashankar is a reserved forest area and wildlife sanctuary where a variety of animals, bird's flowers, plants can be seen.
3. Baneshwar	Baneshwar	Religious / scenic spot	30 kms to the south from Pune is a beautiful place called Baneshwar. It has an old temple of Lord Shiva, which was built by Bajirao Peshwa I, spectacular idols of Lord Vishnu, Goddess Laxmi and Lord Mahadev and five <i>shivlings</i> . As the temple is in dense woods and it seems like a jungle, hence called "Baneshwar". A beautiful garden, a small waterfall, a stream of water all these make Baneshwar a nice picnic spot.
4. Katraj Snake Park	Katraj, Pune	Park	As the name suggests, this place has a collection of snakes, reptiles, birds and turtles. It has 160 species of snakes. Mr. Neelam Kumar Khaire set it up in the year 1986. It was later incorporated in the Rajeev Gandhi Udyan in 1999. Latest addition is a zoo to this park. This place is 8 kms from Pune situated on the Pune-Satara Highway near Bharti Vidyapeeth Campus.
5. Sambhaji Park	Deccan, Pune city	Park	This beautiful Garden is just 1 km from Deccan Gymkhana just next to "Bal Gandharv Mandir" on Jangali Maharaj Road. Main attraction here is the fish aquarium and a small fort especially for small kids fountains, which add beauty to the garden.

Table 34. Places of Tourist Attraction in Pune district (...contd)

Name of Tourist Place	Location	Type	General Description
6. Appughar Indira Gandhi Udyan	Nigadi, MIDC, Pune city	Scenic Spot	The place "Appu Ghar" is 2 kms away from Nigdi. Lots of games fun 'n frolic await tourists and residents who play "Host". While the number of games enchants the kids, the beautiful cool lake and vast explorable hills attract the youngsters and the older generation.
7. Agakhan Palace	Nagar Road, Pune city	Historical	Gandhi National Memorial Society, the Agakhan palace is of Italian arches and lawns. This place has been used as a prison by Britishers for Mahatma Gandhi and Kasturba Gandhi and Mahadeobhai Desai during the "Quit India Movement". Marble memorials were put later on in the memory of Kasturba and Mahadeobhai, as both of them breathed their last in this place.
8. Shaniwarwada	Pune city	Historical	Shaniwar Wada - a 13-storey palace of Peshwas was built by Bajirao I, in the year 1736. It used to be the head quarter of the Peshwas and it symbolizes Pune's culture. The structure was built giving security the highest priority. The main entrance is known as 'Delhi Darwaja', others have names like Ganesh, Mastani, Jambhal, Khidki. There is a statue of Bajirao I on a horse in front of Shaniwar Wada. Inside one can see Ganesh Mahal, Rang Mahal, Aarsa (Mirror) Mahal, Hasti Dant (Elephant Tusk) Mahal, Diwan Khana, and Fountain. It has been currently renovated, also has a light and music show. The palace was the seat of Peshwa power and later was destroyed by a fire in 1828. All that remains are the walls that fortified this palace, with their sturdy doors, studded with spikers for added protection.
9. Vishram Baug Wada	Bajirao Road, Pune city	Historical	This is a three storey, palace built by Bajirao Peshwa 300 year back, famous for its entrance which is surrounded by a balcony. The carved woodwork of the balcony, which surrounds the entrance of this building, is the example of the fine work of a Peshwa Art. The wood used is pure processed Saag. It is 78 feet wide and 66 meters long. After Peshwas this place was used as a jail. Municipal Corporation is soon changing this place to a museum. The entire construction is of brick.
10. Kasba Ganpati	Pune city	Religious	Kasba Ganpati is the <i>Gram Daiwat</i> of Pune. Kasba Peth is near Lal Mahal and the Kasba Ganpati is the Ganpati of first Honor in Pune. So it has the first privilege in the Ganesh Utsav Procession. Shivaji Maharaja's mother Jijabai had put up the statue of Ganesh. On her behalf Dadaji Konddev had put on a tent in front of the statue of Ganesh. Recently Jija mata garden has been created next to it.

Table 34. Places of Tourist Attraction in Pune district (...contd)

Name of Tourist Place	Location	Type	General Description
11. Parvati	Parvati, Pune city	Historical	This is one of the most famous landmarks of Pune. Though the hill is in the Southern half of the city; it is visible from almost every part of city of Pune. There are 108 steps that lead to the temple dedicated to Parvati and Devadeshwar. There are also temples dedicated to Vishnu, Ganesh and Kartikeya. Climbing to the top of the hill can be rewarding as one can enjoy an excellent panoramic view of Pune.
12. Chaturshrungi Temple	Chaturshrungi Pune city	Religious	The Chaturshingi temple is a small hillock dedicated to Goddess "Durga". The presiding deity is Goddess Ambreshwari. An annual Navaratri fair is held here in the month 'Ashwin'. This temple is built in Chh. Shivaji era.
13. Jejuri	Jejuri Tal:-Purandhar	Religious	A well-known place, 40 kms away from Pune, Jejuri is famous for the ancient temple of Lord Khandoba, also known as the Khandobachi Jejuri. The mountain next to it is pleasing to see. A "Yatra" is held over in the months of <i>Chaitra</i> , <i>Margashirsh</i> , <i>Paush</i> and <i>Magh</i> (months of Hindu Calender). While on the way to the temple, one gets a view of the "Dive Ghat". <i>Deep Mala</i> is popular over here. These are a range of lights mounted on stones. <i>Dhanger</i> , one of the oldest tribes in Maharashtra worship Lord Khandoba and Khandoba temples can be seen all along the way as they are on a hill. To reach the temple, one needs to climb about 200 steps. The temple is a beautiful one, which has two bells and beautiful idols. The <i>Mandap</i> and <i>Gabhara</i> constitute the temple. Jejuri also has historical importance as Shivaji and Shahaji had discussed the strategy against the Mughals over here. Various weapons of those times can be seen here.
14. Ashtavinayak	Morgaon, Theur, Ranjangaon, Ozar, Lenyadri	Religious	Lord Ganesh is the protector of his devotees. Eight effigies found among the nature, sculptured by nature have been housed in the temples created ages ago at the places where the effigies were first identified. These are "Swayambhu" effigies. Out of these <i>Ashtavinayaks</i> , five vinayak temples: Morgaon (Moreshwar), Theur (Chintamani), Ranjangaon (Mahaganapati), Ozar (Vighnahar), Lenyadri (Girijatmak) are in Pune district.
15. Saras Baug	Swargate, Pune city	Park	This place is about a kilometer away from Swargate, surrounded by green lawn on all sites. There is a Ganesh temple on a small hillock. Many people come here with kids in the evening. This place is also known as " <i>Talyacha Ganpati</i> ".
16. Peshwa Udyan (Zoo)	Pune city	Park	Apart from being a zoo, Peshwe Park has facilities for a few animal rides and of boating. It is undertaken by the Government (PMC). There is mini train call "Phulrani" to entertain kids as well as their parents.
17. Kamla Nehru Park	Prabhat Road, Pune city	Park	This park is situated on Prabhat Road. This garden has a replica of planes and jets where kids can see them and learn a few things.

Table 34. Places of Tourist Attraction in Pune district (...contd)

Name of Tourist Place	Location	Type	General Description
18. Narayanpur	Narayanpur, Tal. Purandhar	Religious	Towards the south of Pune the village Narayanpur is famous for the native of Sant Changdev and Lord Datta temple. Pilgrims visiting here worship the old 'Audambar' tree and visit the Narayaneshwar temple. The sculptors in the temple are of the Yadav era.
19. Bhatgar Dam	Bhatgar Tal.Bhor	Scenic Spot	40 kms from Pune is a beautiful scenic place called Bhatgar. Bhatgar dam on the river Velvandi is one of the highest river wall dam in India. Beautiful gardens with water sports have been developed in the surrounding areas, which are also worth watching.
20. Mulshi	Mulshi Tal.Maval	Scenic Spot	The place is very near to Pune towards the west. One of the attractive picnic spot developed in recent times. The small village Mulshi, in Maval taluka has all the natural beauties, which attracts the visitor. A lake named 'Valanewadi' which is just 5 kms from Mulshi. The village falls in the Sahyadri ranges, has deep forests with marvelous forts nearby vis. Dhangadh and Korigadh. Besides, the place is also famous for its mountains and a plateau named 'Lavmal'. The hills named Hattihant, Pagota are amazing to see which reach to a height of almost 1000 m. Above all, Mulshi is famous for its dam, which is a major dam generating electricity.
21. Rajgad Fort	Gunjawane Tal.Velhe	Historical	About 85 kms from Pune city, this fort has great historical relevance, as it was Shivaji's favourite fort and first mountain capital. Rajgad has treacherous approaches, zig zag narrow paths and deceptive double-walled armour of its ramparts. The massive pali gate, nedhe or elephant's eye still exists. The view from the top offers a magnificent view of the Sahyadri range.
22. Torna Fort	At: Velhe, Tal.Velhe	Historical	This fort is located at Velhe 65 km away from Pune. This is first fort conquered by Chh. Shivaji Maharaj.
23. Purandhar and Vajragad Fort	Purandhar, Tal. Purandhar	Historical	Both these forts are combined to each other. For some year this fort was capital of Chh. Shivaji Maharaj. Chh.Sambhaji Maharaj son of Chh. Shivaji Maharaj born 1665 on this fort 1665. It is also first capital of Peshwa. Now recently this fort is under charge of National Cadet Core.
24. Lohgad & Visapur Fort	Lohgad and Visapur, Tal. Maval	Historical	Both these forts are close to each other, opposite to Malavali Station on Pune-Mumbai Highway. Raja Ravi Verma had started India's first Lithopress at Malavali. Bhaje caves are located at the foot of Lohgad.
25. Shivneri Fort	Shivneri, Tal.Junnar	Historical	Shivneri Fort is the birthplace of Chh. Shivaji Maharaj. Initially the King Satvahan constructed this fort. Three hill ranges with 150 caves surrounded by this fort and at the center part are located 50 Buddha caves.

Table 34. Places of Tourist Attraction in Pune district (...contd)

Name of Tourist Place	Location	Type	General Description
26. Dehu	Dehu, Tal. Haveli	Religious	Situated on the bank of the River Indrayani, this is the birthplace of Sant Tukaram Maharaj. Pilgrims come here in the large numbers. It is located 34 km away from Pune.
27. Alandi	Alandi, Tal. Haveli	Religious	Alandi is situated on the banks of river Indrayani. The famous Saint Shri Dnyaneshwar Maharaj's Samadhi was built in here in 1570 and this is a place of worship for lakhs of pilgrims visiting from all over Maharashtra. The 'ghat' behind the beautiful samadhi temple is used for holy bath by the pilgrims. The other famous places in Alandi are Muktai temple, Ram temple, Krishna Temple, Math of Swami Hariharendra, Vitthal-Rakhumai temple and the famous flying wall.
28. Nira – Narsingpur	Narsingpur, Tal. Indapur	Religious	The temple looks like a fort is constructed on confluence of the river Bhima and Nira.
29. Tomb of Sambhaji Maharaj	Vadu Budruk Shirur Taluka	Historical	The tomb of Dharmaveer Sambhaji Maharaj is located at Vadu-Budruk on the Pune-Nagar Highway; 3 to 4 km away from Koregaon on the bank of river Bhima.

**Source:** 1) Assistant Director Archaeological dept., Pune -2002  
 2) Regional Director, Maharashtra Tourism Development Corporation, Pune (2002)  
 3) Pune Diary, (2002)  
 4) Tourism Guide, Maharashtra, (2002).

**Table 35. List of Heritage Sites in Pune District**

Name	Location	Description
Alandi	Alandi Tal. Haveli	Alandi is 25 kms away from Pune. Popularly known as Devachi Alandi ("God's Place") has Samadhi and a temple of the saint poet Dnyaneshwar. The temple over here was built in 1570. Sant Dnyaneshwar wrote the Marathi translation of the Bhagwat Geeta called as "Dnyaneshwari". There are other famous places in Alandi are Vitthal-Rakhumai temple, Ram temple, Krishna temple, Muktai temple. Sant Dnyaneshwar spent most part of his lifespan in Alandi. The Palkhi, which is in the month of Ashadh, that goes from Alandi to Pandharpur covers almost 150 kms of distance. Alandi is situated on the banks of river Indrayani. The famous wall on Sant Dnyaneshwar flew to meet Changdev is also present here.
Ashtavinayak	Morgaon (Moreshwar) Theur (Chintamani), Ranjangaon (Mahaganapati), Ozar (Vighnahar), Lenyadri (Girijatmak).	Lord Ganesh is the protector of his devotees. Eight effigies found among the nature, sculptured by nature have been housed in the temples created ages ago at the places where the effigies were first identified. These are "Swayambhu" effigies. Out of these Ashtavinayak five vinayak is in Pune district e.g. Morgaon (Moreshwar), Theur (Chintamani), Ranjangaon (Mahaganapati), Ozar (Vighnahar), Lenyadri (Girijatmak).
Chaturshrungi Temple	Chaturshrungi, Tal. Pune City	The Chaturshingi temple is a small hillock dedicated to Goddess "Durga". The presiding deity is Goddess Ambreshwari. An annual Navaratri fair is held here in the month of 'Ashwin'. This temple is built in Shivaji era.
Dehu	Dehu Tal. Haveli	Situated on the bank of the River Indrayani it is the birthplace of Sant Tukaram Maharaj. Pilgrims come here in the large numbers. It is located 34 km. away from Pune.
Jejuri	Jejuri Tal. Purandhar	40 kms away from Pune is a well-known place from the Khandoba Temple. The mountain next to it is pleasing to see. This place is also known as the Khandobachi Jejuri. "Yatra" is held over in the months Chaitra, Margashirsh, Paush and Magh (months of Hindu Calender) While on the way to the temple one gets a view of Dive Ghat. Deep Mala is popular over here. Deep Mala are a range of lights mounted on stones. Dhanger is one of the oldest tribes in Maharashtra. Khandoba is their God Khandoba temples can be seen when you are on the way as they are on a hill. To reach the temple one needs to climb about 200 steps. The temple is a beautiful one, which has two bells and beautiful idols. Mandap and Gabhara constitute the Temple. Jejuri is also of historical importance. It was considered as an important region towards the South. Shivaji and Shahaji had discussed the strategy against the Mughals over here. Various weapons of those times can be seen over here.



Table 35. List of Heritage Sites in Pune District (...contd.)

Name	Location	Description
Kasba Ganpati	Kasaba Peth, Pune Tal. Pune City	Kasaba Ganpati is the Gram Daivat of Pune. Kasba Peth is near Lal Mahal & the Kasba Ganpati is the Ganpati of first Honor in Pune. So it has the first privilege in the Ganesh Utsav Procession. Shivaji Maharaja's mother Jijabai had put up the statue of Ganesh. On her behalf Dadoji Konddev had put on a tent in front of the statue of Ganesh. Recently Jija mata garden has been made next to it.
Narayanpur	Narayanpur Tal. Purandhar	Towards the south of Pune is the village of Sant Changdev called "Narayanpur". Narayanpur is famous for the "Datta" Temple. Pilgrims visiting here worship the old "Audambar" tree. There is a Narayaneshwar temple. The sculptors in the temple are of the Yadav era. Purandhar fort is nearby to Narayanpur
Parvati	Parvati Hills Pune Tal. Pune City	This is one of the most famous landmarks of Pune. Through the hill is in the Southern half of the city, it is visible from almost every part of city of Pune. There are 108 steps that lead to the temple dedicated to Parvati & Devadeshwar. There are also temples dedicated to Vishnu, Ganesh & Kartikeya, Climbing to the top of the hill can be rewarding as one can enjoy an excellent panoramic view of Pune.
Pataleshwar Temple	J.M. Road, Shivaji Nagar, Pune Tal. Pune City	It has temple dedicated to lord Shiva which is supposedly the Shirne. The Nandi & the pillars are carved from one single rock. Locates in a part of Pune known as Shivaji Nagar, This shiva temple was made in the 8 <sup>th</sup> century cut from one rock this temple is reminiscent of the Kailasa temple at Ellora. It has a shiva shrine as well as one in honour of his bull Nandi.

**Note:** -- : Not Available.

**Source:** 1) Assistant Director Archaeological Dept. (1998); 2) Pune Diary, 3) Tourism Guide, Maharashtra (2002).

**Table 36. List of Monuments - State / Local Significance**

<b>Sr.No.</b>	<b>Name of Tourist Place</b>	<b>Location</b>	<b>Significance (State / Local)</b>
1.	Sinhgad Fort	Donaje, Tal.Haveli	State
2.	Rajgad Fort	Dhunjawane Tal.Velhe	State
3.	Torna Fort	At: Velhe, Tal.Velhe	State
4.	Vishram Baug Wada	Bajirao Road, Tal. Pune City	State
5.	Koyari Fort	Ambavane, Tal. Mulshi	State
6.	Mahadev Temple	Tulapur, Tal. Haveli	State
7.	Nageshwar Temple	Somwar Peth, Pune City	State
8.	Kukdeshwar Temple	Pur, Tal. Junnar	State
9.	Mahatma Phule Wada	Mahtma Phule Peth, Pune City	State
10.	Wada of Sardar Kanhoji Jedhe	Kaari, Tal. Bhore	State
11.	Rajguru Wada	Rajgurunagar, Tal. Khed	State
12.	St. Crispin Church	Yerendvana Pune City	State
13.	Sambhaji Maharaj Samadhi	Vadu, Budruk, Tal. Shirur	State
14.	Mastani Kabar	Pabal, Tal. Shirur	State
15.	Narsigh Temple	Narsingpur Tal. Indapur	State
16.	Kumbharacha Shivar	Inamgaon, Tal. Shirur	State
17.	Trishund Ganpati Temple	Somwar Peth, Pune city	State
18.	Rareshwar Temple	Rayri, Tal. Bhore	State
19.	Baneshwar	Baneshwar	Local
20.	Sambhaji Park	Deccan, Tal. Pune City	Local
21.	Appughar Indira Gandhi Udyan	Nigadi, MIDC, Tal. Pune City	Local
22.	Kasba Ganpati	Tal. Pune City	Local
23.	Parvati Temple	Parvati, Tal. Pune City	Local
24.	Chaturshrungi Temple	Chaturshrungi Tal. Pune City	Local
25.	Saras Baug	Swargate, Tal. Pune City	Local
26.	Peshwa Udyan Zoo	Tal. Pune City	Local
27.	Kamla Nehru Park	Prabhat Road, Pune City	Local
28.	Narayanpur	Narayanpur, Tal. Purandhar	Local

Table 36. List of Monuments - State / Local Significance (contd...)

Sr. No.	Name of Tourist Place	Location	Significance (State / Local)
29.	Bhatgar Dam	Bhatgar Tal.Bhor	Local
30.	Shaniwarwada	Pune Tal. Pune City	Local
31.	Tanaji Malusare Samadhi	Sinhagad, Pune City	Local
32.	Shri Khandoba Temple Precinct	Jejuri, Tal. Baramati	Local
33.	Bhimashankar	Bhimashankar, Tal. Khed	Local
34.	Katraj Snake Park	Katraj, Tal. Pune City	Local
35.	Ashtavinayak	Morgaon, Theur, Ranjangaon, Ozar, Lenyadri	Local
36.	Dehu	Dehu, Tal. Haveli	Local
37.	Purandhar & Vajragad Fort	Purandhar, Tal. Purandhar	Local
38.	Lohgad & Visapur Fort	Lohgad and Visapur, Tal. Maval	Local
39.	Shivneri Fort	Shivneri, Tal. Junnar	Local
40.	Rajmachi Fort	Tal. Maval	Local
41.	Mulshi	Mulshi Tal. Maval	Local

**Source:** 1) Assistant Director Archaeological dept., Pune (2002).

2) Archaeological Department, Mumbai (2004).

3) Maharashtra Tourism Development Corporation, Pune (2002).

4) Pune Diary, (2002)

5) Tourism Guide, Maharashtra, (2002).

**Table 37. Taluka wise Tribal population in Pune district**

<b>Taluka</b>	<b>Tribal Population (1991)</b>	<b>Percentage of Total population to Tribal Population</b>
Pune City	18,621	1.07
Haveli	19,521	1.69
Khed	34,451	12.15
Ambegaon	39,066	20.91
Junnar	58,225	19.16
Shirur	5,167	2.16
Daund	4,430	1.68
Indapur	3,112	1.08
Baramati	1,933	0.62
Purandhar	4,251	2.20
Bhor	3,150	2.03
Velhe	1,440	2.67
Mulshi	4,959	4.02
Mawal	18,010	7.43
<b>Total</b>	<b>2,16,336</b>	<b>100.00</b>

*Source: Tribal Development Department, Pune (2003-04)*

**Table 38. Details of Water Bodies Used for Propagation of Wild Life and Fishery**

Taluka	River Length (km)	Nearest village locations of Fishing Center	No. of Fishing Villages	Potential Area for Fisheries (Ha)	Production (2000-01) (MT)	Revenue Generated (Lakh)
Pune City	26	--	--	33	32	6.40
Haveli	112	Ambegaon, Khadkwasla	2	1331	160	32.00
Khed	115	Wadgaon, Khadus, Chaskman	3	1920	350	70.00
Ambegaon	80	Gohe, Dimbhe	2	1450	407	80.14
Junner	144	Yanere, Ramjewadi, Otur Wagdhara, Alame, Ballawadi, Purunde, Pendeve, Mani, Kdoh, Yedgaon, Pimpalgaon, Joga, Vadaj	12	2790	477	95.40
Shirur	101	Dhaiwadi, Bhamri, Motewadi, Kondapure, Kolegaon-Dolas, Nimgaon-Bhoghi, Nimgaon-Mahalunge, Alegaon-Pega	8	224	205	41.00
Daund	134	Varvand, Khamgaon, Matoba, Kalamb, Malad, Jiregaon	6	281	277	55.40
Indapur	195	Ghargaon, Bhaghatwadi, Madanwadi, Varangali, Shetfal, Haveli, Tarangwadi, Pondewadi, Bijwade, Palesdev, Varkute	11	765	567	113.40
Baramati	108	Vaki, Jalgaon, Supe, Tardoli, Shirsuphal	4	278	137	27.40
Purandhar	58	Mahur, Veer Nala, Tilan-wadi, Pingori, Latakarwadi, Patharwadi, Garade, gorvadi, Pesarve, Nazare, Veer	11	2220	302	60.40
Bhor	86	Naigaon, Degaon, Divale, Mahakoshi, Bhatghar	5	1724	187	37.40
Velha	29	Varasgaon, Panshet	2	1962	163	32.60
Mulshi	26	Uruade, Rihe, Mugaon, Chinchwad, Walen, Pimpoli, Hadshi, Lavarde	8	5304	200	40.00
Maval	38	Hadale, Pavana, Kasarsaid	3	2499	351	70.20
	<b>1252</b>		<b>77</b>	<b>22781</b>	<b>3815</b>	<b>761.74</b>

**Note:** -- : Not available

**Source:** 1) District Fisheries Development Office, Pune;  
2) Dist. Stastitical Report (2000-01).

**Table 39. Industrial Estates in Pune District**

Sr. No.	Name of Industrial Area / Estate / Complex	Location	Existing Area	Proposed Additional Area	Total Area	Remarks
			(Ha)	(Ha)	(Ha)	
1.	Baramati	Bhigwan Road 5 Km from Baramati, 105 Km from Pune Tal.Baramati	812.00	Nil	812	--
2.	Kurkumbh	Pune-Solapur National Highway 5 Km from Kurkumbh, 75 km from Pune 10 km from Daund Railway Station Tal. Daund	483.00	Nil	483	--
3.	Jejuri	Pune-Nira-Satara state Highway Pune-Nira Road, 250 km from Jejuri 48 km from Pune Tal. Purandhar	177.00	60	237	Additional area is under development
4.	Pandare	Baramati-Nira Road 15 km from Baramati Tal.Baramati	25.00	Nil	25	--
5.	Indapur	Pune-Solapur National Highway 10 km from Indapur 146 km from Pune Tal.Indapur	400.00	Nil	400	Area is under development
6.	Chinchwad	Pune-Mumbai National Highway 30 km from Pune Tal.Haveli	1224.02	Nil	1224.02	--
7.	Chakan	Pune Nasik National Highway 25 km from Pune Tal. Khed	262.90	Nil	262.90	--
8.	Rajgurunagar	Pune Nasik National Highway 36 km from Pune Tal. Khed	928.79	Nil	928.79	--
9.	Talegaon	Pune-Mumbai National Highway 30 km from Pune Tal.Maval	578.21	Nil	578.21	Floriculture Park Development
10.	Hinjvadi	Near Pune-Mumbai Express Highway 18 km from Pune Tal.Mulshi	Phase I- 96.00 Phase II- 88.00	Phase I: Nil Phase II: 162	346.00	Infotech Development Park
11.	Kharadi	Pune-Nagar State Highway, Chandan Nagar Mundawa Bypass 10 km from Pune stn. Tal. Pune City	30.00	Nil	30.00	Infotech Development Park
12.	Talavade	5 km away from Pune Nasik National Highway and 25 km from Pune Tal. Haveli	75.00	Nil	75.00	Infotech Development Park
		<b>Total</b>	<b>5179.92</b>	<b>222</b>	<b>5401.92</b>	

**Note:** --: Not available.

**Source:** 1) Chief Engg., MIDC, Pune (2002) 2) Ex. Engg. MIDC, Pimpri-Chinchwad (2002); 3) Ex. Engg., MIDC, Baramati (2002).

**Table 40. Industry Statistics of Pune District for the Year 2003-04**

Sr.No.	Industry Category	Type of Industry			Grand Total
		Large	Medium	Small	
1	Red	206	129	1067	<b>1402</b>
2	Orange	32	87	1426	<b>1545</b>
3	Green	40	82	3436	<b>3558</b>
	<b>Total</b>	<b>278</b>	<b>298</b>	<b>5929</b>	<b>6505</b>

*Source: Regional Office, MPCB-Pune (2003)*

**Table 41. Status of CREP (Corporate Responsibility for Environmental Protection) Industries in Pune District (2004)**

Sr. No.	Sub-Region	Category			Industrial Effluent Quantity (Cu.M/D)
		R	O	G	
1	Pune - I	17	2	0	35,398
2	Pune - II	10	3	0	4,316
3	Pune - III (PCMC)	3	7	0	23,217
	<b>Total</b>	<b>30</b>	<b>12</b>	<b>0</b>	<b>62,931</b>

*Source: MPCB website (2005).*

**Table 42. Sugar Industries in Pune District**

<b>Sr. No.</b>	<b>Taluka</b>	<b>Name of Sugar Industry</b>	<b>Capacity (MT)</b>	<b>Sugar Production (MT)</b>
1	Haveli	Yashwant Co-operative Sugar Factory	3,500	6,285
2	Junnar	Vighnar	2,500	97,961
3	Daund	Bhima-Patas	5,000	1,03,580
4	Indapur	a) Indapur	4,000	65,686
		b) Chhatrapati	2,500	70,413
5	Baramati	a) Malegaon	4,000	86,885
		b) Someshwar	2,500	64,001
6	Bhor	Rajghad	1,250	27,886
7	Shirur	Ghodganga	2,500	64,550
8	Mulshi	Sant Tukaram	2,500	56,086
9	Ambegaon	Bhimashankar	2,500	49,239
<b>Total (11 Nos.)</b>			<b>32,750</b>	<b>75,3572</b>

**Source:** District Social and Economical Review Report, Economics & Statistical Department, Pune District (2002).



**Table 43. Location of Stone Mines (Open cast) in Pune District**

Taluka	Name of Village	No. of Stone Crushers	Area Covered (ha)	Pollution Problems
Pune City	--	--	--	--
Haveli	Katraj (Mangodewadi), Yevlewadi, Ambegaon-Budruk, Kolewadi, Choroli-Budruk, Moshi, Chovisawadi, Chikhli, Gauiddhara, Sanaswadi (Nanded), Polewadi, Wadgaonshinde, Warje, Tarde, Urli-Devachi, Udachiwadi, Lonikand, Dhayri, Wagholi, Bhavadi	60	140	Noise & Dust
Khed	Pimpalgaon-Siddhanath, Vadgaon-Ghenand,	2	3	Noise & Dust
Ambegaon	Mordewadi, Shewalwadi, Lavki, Pargaon, Pargaon-Tarfe-Khed, Nandur	6	9	Noise & Dust
Junnar	Khamundi, Puran, Lavki, Manikdohe, Dhalewadi, Shirol-Budruk, Ghodre, Pimpalgaon, Sidhrak	11	17	Noise & Dust
Shirur	Dhok-Sanghvi, Taregaon, Malthan, Saradwadi, Kardilwadi, Shirur	14	20	Noise & Dust
Daund	Bhantgaon, Devulgaon-Raje, Girim, Malewadi, Devulgaon-Ghoda, Daund	10	15	Noise & Dust
Indapur	Dalaj	1	1.4	Noise & Dust
Baramati	Manapawadi	1	1.2	Noise & Dust
Purandhar	Zendewadi, Shivari, Pandeshwar	3	4.5	Noise & Dust
Bhor	Kopurchole	1	1.5	Noise & Dust
Velha	Ranjene	1	1.8	Noise & Dust
Mulshi	Kasar-Amboli, Amberweight, Urevadi, Man, Nere	11	18	Noise & Dust
Maval	Umbre-Navlakh, Jadavwadi, Aherewadi, Karandoli, Aundhe, Kushgaon, Wadeshwar, Naigaon, Chandkhed, Takve khurd, Induri, Salumbre, Kusgaon-Budruk	20	30	Noise & Dust
	<b>Total</b>	<b>141</b>	<b>262.4</b>	

**Note:** --: Not Applicable

**Source:** District Geology and Mining Office (2002).

**Table 44. Domestic Sewage Load and Solid Waste generated by urban local bodies in Pune District**

Sr. No.	Urban Local Body	Source of water	Quantity of water consumption (MLD)	Quantity of Sewage (MLD)	Sewage Treatment facility	Mode of Disposal	Solid waste* (MT/month)	Solid waste Treatment	Solid waste Disposal	Approval by MPCB (as per MSW Rules)
1.	Pune Municipal Corporation	Khadakvasala dam	700.00	560.00	Dr. Naidu STP 90 MLD	River Mula Mutha	30,000.0	Segregation and Composting	At Devachi Uruli- Land fill	Yes
					Bhirobanala STP 130 MLD					
					Tanajiwadi STP 17 MLD					
					Bopodi STP 18 MLD					
					Erandwana STP 50 MLD					
					Vittalwadi STP 20 MLD					
2.	Pimpri Chinchwad Municipal Corporation	Khadakvasala dam	--	--	--	--	440.0	--	Land fill	Yes
3.	Indapur Municipal Council	Ujani Dam back Tarangwadi lack	1.40	0.68	Not provided through nalla	Bhima River	75.0	Only dumping yard	Land fill	Yes
4.	Daund Municipal Council	Bhima River	1.50	1.20	Not provided	Bhima River through nalla	210.0	Only dumping yard	Landfill	Yes
5.	Bhor Municipal Council	Bhatghar Dam	1.30	1.20	Not provided	Nira River	120.0	Only dumping yard	Landfill	Yes
6.	Jejuri Municipal Council	Karha River	0.15	0.13	Not provided	Karha river	180.0	Only dumping yard	Landfill	Yes

Table 42. Domestic Sewage Load and Solid Waste generated by urban local bodies in Pune District (...contd.)

Sr. No.	Urban Local Body	Source of water	Quantity of water consumption (MLD)	Quantity of Sewage (MLD)	Sewage Treatment facility	Mode of Disposal	Solid waste* (MT/day)	Solid waste Treatment	Solid waste Disposal	Approval by MPCB (as per MSW Rules)
7.	Saswad Municipal Council	Karha River	0.21	0.18	Oxidation ponds	Karha river not in use	90.0	Only dumping yard	Landfill	Yes
8.	Baramati Municipal Council	Nira left bank canal	5.00	2.88	Underground drainage system no treatment	Nira river	480.0	Composting	Composting	Yes
9.	Shirur Municipal Council	Ghodnadi	1.40	1.2	Not provided	Ghodnadi through nalla	90.0	--	Land fill	Yes
10.	Junnar Municipal Council	Mira River	1.00	0.8	Not provided	Mira River through nalla	180.0	--	Land fill	Yes
11.	Lonawala Municipal Council	Indrayani River	17.00	15.0	Provided	Indrayani through nalla	600.0	--	Land fill	Yes
12.	Alandi Municipal Council	Indrayani River	0.90	0.7	Not provided	Indrayani through nalla	150.0	--	Land fill	Yes
13.	Talegaon Municipal Council	Indrayani River	7.00	6.0	Not provided	Indrayani through nalla	240.0	--	Land fill	Yes
14.	Khadaki Cantonment	Khadkawasala Dam	33.00	31.0	STP with 800 CMD capacity	Mula-Mutha River	135.0	--	Land fill	Yes
15.	Pune Cant.	Khadkawasala Dam	36.00	32.0	Sewage effluent is joined to PMC STP	Mula-Mutha River	900.0	--	Land fill	Yes
16.	Dehuroad Cant.	Khadkawasala Dam	21.00	18.0	Not provided	Pawana River	150.0	--	Land fill	Yes

**Note:** 1) '—' Data not Available 2) \* Data for 2005 from MPCB website.

**Source:** Regional office, MPCB- Pune (2003-04),

**Table 45. Talukawise generation of Hazardous Waste in Pune District**

Sr. No.	Taluka	No. of Industries	Disposal in landfills	Recyclable	Incinerable	Total HW (MT/M)
1.	Ambegaon	1	0.00	0.00	4.00	4.00
2.	Baramati	8	13.10	3.15	26.61	42.86
3.	Bhor	10	8.50	2.80	5.92	17.22
4.	Daund	44	889.57	22.65	261.97	1174.18
5.	Haveli	254	1473.80	829.03	423.73	2726.30
6.	Junnar	1	0.00	0.00	2.40	2.40
7.	Khed	57	137.81	60.96	41.48	240.25
8.	Maval	17	50.41	78.66	6.08	135.14
9.	Mulshi	37	112.93	15.87	10.97	139.76
10.	Pune City	17	13.86	9.63	4.72	28.21
11.	Purandhar	14	41.30	1.20	1.01	43.51
12.	Shirur	51	80.67	134.25	279.51	494.69
13.	Indapur	5	150.75	0.10	6.00	156.85
	<b>Total</b>	<b>516</b>	<b>2972.68</b>	<b>1158.29</b>	<b>1074.38</b>	<b>5205.35</b>

*Source: Regional office- MPCB, Pune (2005)*

**Table 46. Profile of Industries generating Hazardous Wastes in Pune District**

Sr. No.	Type of Industry	Shirur	Bhor	Purandhar	Haveli	Khed	Daund	Maval	Baramati	Mulshi	Pune	Ambegaon	Junnar	Indapur	Total
1	Asbestos, Cement				2	2	2	2							08
2	Automobile	8			17	6		1	1	2	2				37
3	CETP						1								01
4	Chemical	5		2	25		15		1	7					55
5	Drug & Drug Intermediate			1	4		6			2					13
6	Dyes	1			4					3	1				09
7	Electronic and Consumer Goods	2			13	2	1			3					21
8	Formulation/ Pesticides	1			6	4				3					14
9	Hardening/ Heat Treatment/ Industrial Gases	1		1	5										07
10	Metal Finishing	8		1	55	17	1	1		1	3				87
11	Other (Engg., Glass, Battery, Power plant)	19	4	4	81	18	2	8	1	7	6				150
12	Packaging, Rubber Products		1					1			1				03
13	Paints and Inks	1			1	1	1	2		2					08
14	Paper		1		2		1							1	05
15	Petro-chemical/ Petroleum and Oil Refining			1	5	3	2		3						14
16	Pharma		1	2	18	1	5	2		2	1				32
17	Plastic and Polymer	1				2	3			2	1				09
18	Resins and Adhesives	2	1	2	12	1					1				19
19	Solvent Distillation	1			1		2			1					05
20	Stone crushing/ Tiles						1							1	02
21	Sugar	1	1		1		1		2	1		1	1	3	12
22	Textile and Printing Machinery		1		2					1	1				05
	<b>Total</b>	<b>51</b>	<b>10</b>	<b>14</b>	<b>254</b>	<b>57</b>	<b>44</b>	<b>17</b>	<b>8</b>	<b>37</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>516</b>

**Source:** Regional Office- MPCB, Pune (2005)

**Table 47. Status of Bio-Medical Wastes in Pune District**

S. No.	Name of Sub-Region (MPCB)	No. of Health Care Facility	No. of Beds	Estimated BMW Quantity kg/D	Treated BMW quantity kg/D	Total
1	Pune-I	691	8894	1500.00	1400	12485
2	Pune-II	175	2625	737.75	35	3572.75
3	Pimpri-Chinchwad	206	3621	545.00	545	4917
	<b>Total</b>	<b>1072</b>	<b>15140</b>	<b>2782.75</b>	<b>1980</b>	<b>20974.75</b>

**Note:** *Pune-I: Pune Municipal Corporation area, Daund, Indapur, Baramati, Purandhar, Bhor & Velha Taluka*  
*Pune-II: Haveli Taluka (excluding PCMC area), Khed, Mulshi, Ambegaon, Junnar, Maval and Shirur Taluka*  
*Pimpri-Chinchwad: Pimpri Chinchwad Municipal Corporation area, including MIDC Pimpri, Bhosari and Akurdi.*  
**Source:** Regional Office, MPCB, Pune (2003-04).

**Table 48. Consumption of Fertilizer in Pune District**

Year	N	P	K
<b>1999-2000</b>			
Kharif	25,836	8,225	6,171
Rabi	28,385	11,094	9,192
Total	54,221	19,319	15,363
<b>2000-2001</b>			
Kharif	22,196	5,989	8,826
Rabi	26,587	9,493	8,072
Total	48,783	15,482	16,898
<b>2001-2002</b>			
Kharif	25,806	8,872	8,049
Rabi	28,062	11,176	9,963
Total	53,870	20,048	18,012

**Note:** All Figures are in tonnes.  
**Source:** District Agriculture Office-Pune (2002)

**Table 49. Emission Load from Vehicles in Pune District**

Vehicle Type	No. of vehicles	CO	NOx	SO <sub>2</sub>	HC	TSP	PM <sub>10</sub>	TOTAL
		Tonnes per day						
Cars	126017	35.47	4.07	0.059	6.67	0.53	0.351	<b>47.15</b>
2 Wheelers	851746	54.87	0.455	0.088	29.18	1.37	0.85	<b>86.81</b>
Rickshaws	56614	51.49	1.38	0.66	33.84	1.65	1.29	<b>90.31</b>
Taxis	4272	7.06	0.65	0.005	1.31	0.08	0.05	<b>9.15</b>
Buses	6816	9.50	10.03	0.93	1.85	1.47	1.15	<b>24.93</b>
Trucks	41841	30.27	38.38	2.92	4.84	5.57	4.40	<b>86.38</b>
<b>Total</b>	<b>1087306</b>	<b>188.66</b>	<b>54.96</b>	<b>59.63</b>	<b>77.69</b>	<b>10.67</b>	<b>8.09</b>	<b>399.70</b>

*Source: District Social and Economical Review Report, Economics & Statistical Department, Pune District (2001-02).*

**Table 50. Number of Registered Vehicles in Pune District**

S. No.	Type of Vehicle	2000	2001
1.	2 Wheeler Auto Vehicles	7,74,096	8,51,746
2.	Motor Cars	1,13,996	1,26,017
3.	Taxies Carbs	4,294	4,272
4.	Autorickshaw	53,891	56,614
5.	Stage Carriage	5,217	5,295
6.	Trucks & lorries including Del. Van	56,981	60,401
7.	Ambulances	852	883
8.	School buses	77	77
9.	Private Service Vehicles	1,694	2,038
10.	Traillers	11,652	12,773
11.	Tractors	15,147	16,649
12.	Others	1,531	1,562
	<b>Total</b>	<b>1039428</b>	<b>1138327</b>

*Source: District Social and Economical Review Report, Economics & Statistical Department, Pune District 2002-03.*

**Table 51. Number of Vehicles on National Highway (2000 and 2001)**

**Data for the year 2000\***

Sr. No.	Location	Type of Road	Road Width (m)	No.s of Vehicle				Total nos. of Vehicles
				Cars, Jeeps	Buses	Private Carriers/ Trax	2 Wheelers	
<b>Mumbai-Panvel-Banglore NH-4</b>								
1	Khandala, Tal. Khed	BT	7	7,612	2,508	10,099	885	23,189
2	Talegaon, Tal. Haveli	BT	7	4,570	1,535	6,730	5,077	17,912
3	Katraj, Tal. Haveli	BT	7	12093	2441	11,957	10,556	37,117
4	Pandharpur Phata, Tal. Bhor	BT	7	4,894	1,757	6,007	1,904	14,563
5	Shirur, Tal. Shirur	BT	7	6,164	2,131	6,830	2,506	17,630
6	Khindwaqdi, Tal. Shirur	BT	7	6,496	2,080	7,250	3,272	19,049
7	Umbraj Tal. Shirur	BT	7	4,683	1,579	6,918	2,824	16,004
<b>Pune-Solapur Road NH-9</b>								
1	Yavat, Tal. Haveli	BT	7	6,600	956	13,352	5,828	26,739
2	Indapur, Tal. Indapur	BT	7	6,388	1,712	6,036	4,463	18,599
<b>Pune-Nashik Road NH-50</b>								
1	Chakan, Tal. Rajguru Nagar	BT	7	5,162	4,227	7,696	7,738	24,744
2	Nashik Phata, Tal. Rajguru Nagar	BT	7	6,640	4,152	8,484	7,587	26,813

**Data for the year 2001**

S.No.	Location	Type of Road	Road Width (m)	No.s of Vehicle				Total nos. of Vehicles
				Cars, Jeeps	Buses	Private Carriers/ Trax	2 Wheelers	
<b>Mumbai-Panvel-Banglore NH-4</b>								
1	Khandala, Tal. Khed	BT	7	9,697	2,508	10,099	885	23,189
2	Talegaon, Tal. Haveli	BT	7	4,570	1,535	6,730	5,077	17,912
3	Katraj, Tal. Haveli	BT	7	13,608	2,281	12,689	8,878	37,456
<b>Pune-Solapur Road NH-9</b>								
1	Yavat, Tal. Haveli	BT	7	11,147	960	14,640	7,686	34,425
2	Indapur, Tal. Indapur	BT	7	6,525	1,767	7,360	4,191	19,843
<b>Pune-Nashik Road NH-50</b>								
1	Chakan, Tal. Rajguru Nagar	BT	7	5,336	4,379	7,955	7,815	25,485
2	Nashik Phata, Tal. Rajguru Nagar	BT	7	6,870	4,318	8,998	7,596	27,782

**Note:** B.T.: Bituminous Road

**Source:** 1. \* District Social and Economical Review Report, Economics & Statistical Department, Pune District (2001-2002).



**Table 52. Number of Vehicles Registered with the RTO in PMC Area, Pune (2002-2004)**

Type of Vehicle	2002	2003	2004
	No.of Vehicle Registered	No.of Vehicle Registered	No.of Vehicle Registered
Motor Cycles	46625	48466	56018
Scooters	10357	14244	15678
Mopeds	5427	6716	8057
Total 2 Wheelers	62409	69426	79753
Cars	11010	11125	13464
Jeeps	1813	1638	1688
Stn.Wagons	--	3	2
Taxis Carbs	259	485	678
Autorickshaw	3046	3062	2124
Stage Carriage	28	282	719
Contract Carriage	119	249	219
School buses	--	--	160
Pvt.Ser.Vehicles	--	--	23
Ambulances	24	19	21
Trucks and lorries	523	548	708
Tankers	77	54	111
Del.Van (4 Wheelers)	740	894	1115
Del.Van (3 Wheelers)	1323	1778	1805
Tractors	659	379	245
Trailers	586	341	195
Others	27	25	25
<b>Total</b>	<b>20234</b>	<b>20882</b>	<b>23303</b>

**Source:** Environmental Status Report, Pune Municipal Corporation- Pune (2003-04)

**Table 53. Ambient Air Quality data from primary sources for Pune City (2003-04)**

City	Name of the sampling station	Class of area	SO <sub>2</sub>			NO <sub>x</sub>			SPM		
			Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
Pune City	At Fursungi over bridge	Residential area having few industries in the vicinity	14.00	20.20	18.81	23.30	44.30	32.45	133.20	1169.20	353.97
Shivaji Nagar	Jog Centre, Pune	Comercial	8.64	26.30	18.50	15.10	49.60	30.25	46.60	313.00	169.60
Pimpri Chinchwad	PCMC	Industrial	27.12	44.96	35.04	30.36	57.32	43.68	44.12	180.36	102.68
Tal. Haveli	Bhosari	Residential	27.12	44.96	33.04	30.36	57.32	43.68	44.12	180.36	102.68

**Note:** All units are in  $\mu\text{g}/\text{m}^3$ .

**Source:** Ambient Air Quality Data, 2003-04, MPC Board.

**Table 54. Ambient Air Quality from primary sources for Pimpri Chinchwad Area (2003-04)**

Sr.No.	Place / Site	SPM	SO <sub>x</sub>	NO <sub>x</sub>	Remark
<b>a) Industrial Zone</b>					
1	Telco	725	62	52	SPM is beyond the permissible limit
2	Bhosari	685	56	58	
3	Ruston Hornsby	732	80	62	
4	Garware	594	58	66	
5	Hindustan Antibiotics	545	62	59	
6	Permissible limits	500	120	120	
<b>b) Commercial Zone</b>					
1	Raka Gas	535	56	52	At some sites, SPM is beyond permissible limit
2	PCMC	460	59	72	
3	Garware Nylon	552	64	69	
4	Kalewadi	338	38	75	
5	Dapodi	412	52	73	
6	Permissible limits	500	120	120	
<b>c) Residential zone</b>					
1	Telco colony	226	65	48	At some sites, SPM is beyond permissible limit
2	Century Enka Colony	160	62	49	
3	H.A. colony	112	57	60	
4	Pradhikaran	185	55	59	
5	Indiranagar	218	60	70	
6	Permissible limits	200	80	80	
<b>d) Silence zone</b>					
1	Telco Road	94	39	42	SO <sub>2</sub> and NO <sub>x</sub> is beyond permissible limit
2	Lokmanya Hospital	110	47	52	
3	Talera Hospital	90	52	55	
4	Jijamata Hospital	87	58	49	
5	Mata Temples	93	48	43	
6	Permissible limits	100	30	30	

**Note:** All units are in  $\mu\text{g}/\text{m}^3$ .

**Source:** Regional Office-MPCB, Pune 2003-04

**Table 55. Ambient Air Quality Data from secondary sources for Pune city**

**Data 1: Ambient Air Quality at Majur Adda and Yashwantrao Chavan Natya Gruha**

Date	Majur Adda				Yashwantrao Chavan Natya Gruha			
	PM <sub>10</sub>	SPM	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>	SPM	NO <sub>x</sub>	SO <sub>2</sub>
20/12/2001	154.22*	222.36*	90.21*	51.77	87.92	--	71.19	31.04
21/12/2001	167.29*	210.31*	88.39*	53.23	93.33	--	74.29	30.82
27/12/2001	143.71*	198.36	74.23	42.11	79.34	--	68.62	21.22
28/12/2001	156.02*	199.09	76.19	41.76	82.05	--	69.41	26.43
Permissible Limit (24 hours)	100.00	200.00	80.00	80.00	100.00	200.00	80.00	80.00

**Data 2: Ambient Air Quality at University Gate**

Date	SO <sub>2</sub>	NO <sub>x</sub>	PM10	SPM	TSPM
Mar-98	63.16	92.95*	59.15	187.65	246.80
Apr-98	56.24	92.72*	69.83	78.33	148.16
May-98	25.05	41.59	96.75	183.75	280.50
Jun-98	25.46	52.17	89.15	235.15*	324.30
Jul-98	56.98	69.78	48.72	87.89	136.61
Aug-98	57.53	56.47	36.61	156.36	192.97
Sep-98	19.32	70.20	137.80*	141.29	279.09
Oct-98	18.49	27.62	107.05*	100.78	208.28
Nov-98	60.33	48.66	125.00*	107.00	232.00
Dec-98	84.47*	24.80	164.36*	99.72	264.08
Jan-99	74.60	8.92	120.40*	212.00*	332.40
Feb-99	77.79	32.25	179.34*	161.10	340.44
Mar-99	69.17	24.96	150.41*	198.01	348.42
Apr-99	17.22	10.12	91.67	303.62	395.29

Table 55. Ambient Air Quality Data from secondary sources for Pune city (...contd.)

**Data 2: Ambient Air Quality at University Gate**

Date	SO <sub>2</sub>	NO <sub>x</sub>	PM10	SPM	TSPM
May-99	27.79	18.01	91.32	246.11*	337.43
Jun-99	48.00	17.78	95.61	276.29*	371.90
Jul-99	59.08	41.31	53.47	99.03	152.50
Aug-99	52.30	44.50	47.01	137.12	184.13
Sep-99	63.02	22.77	74.59	101.67	176.26
Oct-99	55.41	41.10	45.45	212.12*	257.57
Dec-99	57.19	45.75	263.38*	96.96	360.34
Jan-00	60.91	34.42	102.20*	569.80*	672.00

- Note:**
1. All units are in  $\mu\text{g}/\text{m}^3$ .
  2. \* : Exceeding permissible limits.
  3. # : Period of Monitoring 24 hrs.

**Source:** Department of School of Health Science, University of Pune (2002).

**Table 56. Ambient Air Quality Monitored under NAAQM for Pune city (2001-04)**

**Data for 2001-02**

Monitoring Station	Parameter	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02
		Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
Bhosari (I) Pune University Pune	SO <sub>2</sub>	39	31	31	31	35	30	41	40	43	40	41	37
	NOx	49	41	41	43	47	45	59	46	54	52	56	46
	SPM	73	50	33	34	75	61	91	69	46	118	-	56
Nal Stop (R) Pune University Pune	SO <sub>2</sub>	49	36	42	40	41	45	55	44	48	44	44	43
	NOx	70	97	96	115	92	102	127	114	109	103	94	92
	SPM	110	213	147	133	226	314	297	420	447	211	318	290
Swargate (C) Pune University Pune	SO <sub>2</sub>	51	54	45	39	39	44	46	51	44	40	45	44
	NOx	31	102	70	90	78	105	119	110	100	92	87	88
	SPM	298	343	123	163	325	309	275	371	46	173	268	271

**Data for 2002-03**

Monitoring Station	Parameter	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03
		Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
Bhosari (I) Pune University Pune	SO <sub>2</sub>	37	34	39	38	36	38	36.2	39.3	41.0	--	--	--
	NOx	46	46	47	45	43	49	47.8	46.3	47.0	--	--	--
	SPM	56	61	60	80	76	50	79.8	104.7	170.0	--	--	--
Nal Stop (R) Pune University Pune	SO <sub>2</sub>	43	41	44	43	43	43	42	46.3	43.7	80	78.8	80.0
	NOx	92	85	86	77	73	77	78.8	80.3	82.7	39.2	38.0	38.5
	SPM	290	257	229	195	278	641	330.5	468.3	470.0	536.8	436.8	316.8
Swargate (C) Pune University Pune	SO <sub>2</sub>	44	39	43	42	40	42	40.5	40.0	40.0	76.6	72.0	75.3
	NOx	88	80	88	74	68	73	75.5	78.3	80.0	39.0	36.3	35.8
	SPM	271	204	254	204	180	487	420	508.3	410.0	395.0	327.5	312.8

Table 56. Ambient Air Quality Monitored under NAAQM for Pune city (2001-04) (... contd.)

**Data for 2003-04**

S. No.	Monitoring Station		Apr-03		May-03		Jun-03		Jul-03		Aug-03		Sep-03		Oct-03		Nov-03		Dec-03		Jan-04		Feb-04		Mar-04		Total No. of samples	Annual Avg.
			N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.	N	Avg.		
1	Bhosari (I)	SO <sub>2</sub>	39	30	54	29	47	28	49	29	54	32	48	33	54	28	52	32	52	33	54	37	48	32	54	38	605	31.75
	Pune University	NOx	39	40	54	38	47	37	49	39	54	38	41	11	54	39	52	38	52	38	54	43	48	41	54	41	598	36.92
	Pune	SPM	20	110	27	98	24	90	25	81	27	84	24	90	27	143	26	300	26	276	27	198	24	220	27	217	304	160.25
		RSPM	20	118	27	85	24	55	25	44	27	48	24	43	27	67	26	177	26	140	27	86	24	105	27	95	304	88.58
2	Nal Stop (R)	SO <sub>2</sub>	54	34	49	35	45	35	45	4	48	33	53	37	51	37	48	38	54	35	53	40	43	36	49	42	592	36.33
	Pune University	NOx	54	76	49	71	45	71	5	77	48	71	77	20	51	71	48	79	54	77	53	86	43	83	49	81	616	71.92
	Pune	SPM	27	320	25	277	23	309	23	306	24	356	27	286	26	569	24	566	7	624	27	596	22	515	25	723	300	453.92
		RSPM	27	155	25	127	23	124	23	102	24	97	27	108	26	198	24	201	27	241	27	225	22	217	25	246	300	170.08
3	Swargate (C)	SO <sub>2</sub>	45	34	49	36	0	32	51	30	42	34	52	33	51	34	47	35	52	31	48	38	44	33	49	40	580	34.17
	Pune University	NOx	45	73	49	70	50	64	51	65	42	64	52	21	51	66	47	69	52	69	48	75	44	73	49	71	580	65.00
	Pune	SPM	24	368	26	342	26	230	27	173	21	234	27	95	27	180	24	628	27	611	24	496	22	599	25	659	300	384.58
		RSPM	24	146	26	117	26	98	27	67	21	73	27	205	27	493	24	230	27	260	24	204	22	227	25	227	300	195.58

Note: All units are in µg /m<sup>3</sup>.

Source: MPCB, Pune (2003-04).

**Table 57. Noise Pollution Levels during Ganesh Festival in Pune city (2003)****Data 1 - Distance approx. 5 mtrs. Date-1st Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Yerwada, Near Mandai, Nagar Road	20.20	20.30	76.00	80.30
2.	Pune Station, Near Bus Stand	20.40	20.45	78.00	90.20
3.	Rasta Peth, Quarter Gate	20.50	21.00	77.20	90.00
4.	Nana Peth, Shivaji Mandal	21.10	21.20	80.20	85.30
5.	Dulya Maruti Chowk, Ganesh Peth	21.30	21.40	78.30	80.00
6.	Dagadusheth Halwai Ganapati	21.55	22.10	68.00	70.30
7.	Near City Post	22.30	22.40	70.20	76.00
8.	Babu Genu, Tulshi Baug	22.45	23.00	71.50	77.00
9.	M. Phule Mandai	23.05	23.15	70.00	74.50
10.	Guruji Talim Mandal, Laxmi Road	23.30	23.40	68.00	73.50
11.	Gilbya Maruti Chowk, Shivaji Road	23.15	23.50	58.50	63.20
12.	Khandakmal Area	23.55	00.10	60.50	66.30
13.	Hira Baug Ganapati	01.10	01.20	60.50	66.00
14.	Alka Chowk	01.30	01.40	55.00	62.00

**Data 2 - Distance approx. 5 mtrs. Date-2nd Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Yerwada, Near Mandai, Nagar Road	20.20	20.30	71.00	73.00
2.	Pune Station, Near Bus Stand	21.30	21.40	87.00	92.00
3.	Rasta Peth, Quarter Gate	21.45	21.55	82.00	89.00
4.	Nana Peth, Shivaji Mandal	22.10	22.20	96.00	99.00
5.	Dulya Maruti Chowk, Ganesh Peth	20.30	20.40	96.00	100.30
6.	Dagadusheth Halwai Ganapati	10.45	10.55	74.00	76.00
7.	Babu Genu Ganapati, Tulshi Baug	11.05	11.15	74.00	76.00
8.	Akhil Mandai Ganapati, M. Phule Mandai	11.20	11.30	68.00	73.00
9.	Guruji Talim Mandal, Laxmi Road	11.40	11.50	62.00	67.00
10.	Gilbya Maruti Chowk, Shivaji Road	12.00	12.10	53.00	57.00
11.	Hira Baug Ganapati	12.15	12.30	75.00	84.00
12.	Hatti Ganapati, Sadashiv Peth	12.30	12.40	88.00	92.00



Table 57. Noise Pollution Levels during Ganesh Festival in Pune city (2003)..... (contd.)

**Data 3 - Distance approx. 5 mtrs. Date-8th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Yerwada, Near Mandai, Nagar Road	20.00	20.10	72.00	75.00
2.	Pune Station, Near Bus Stand	20.55	21.00	74.00	76.00
3.	Shiv Shakti Tarun Mandal, Nana Peth	21.20	21.30	88.00	92.00
4.	Apolo Tarun Mandal, Pune	21.50	22.00	90.00	93.00
5.	Rasta Peth, Quarter Gate	22.25	22.35	86.00	90.00
6.	Natu Baug Mandal, Sadashiv Peth	23.20	23.30	92.00	94.00
7.	Hatti Ganapati, Sadashiv Peth	23.55	00.10	81.00	83.50
8.	Hira Baug Ganapati	00.30	00.40	76.00	79.50
9.	Near Swargate Bus Stand	01.10	01.20	76.00	80.00
10.	Shivraj Mandal, Bhavani Peth	01.30	01.35	78.00	80.00
11.	Near PMC Building	01.50	01.55	71.00	73.00

**Data 4 - Distance approx. 5 mtrs. Date-7th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Dulya Maruti Chowk, Ganesh Peth	19.30	19.40	96.00	98.00
2.	Dagadusheth Halwai Ganapati	19.50	20.00	94.00	96.00
3.	Babu Genu, Tulshi Baug	20.10	20.20	70.00	75.00
4.	Akhil Mandai Ganapati, M. Phule Mandai	20.30	20.40	76.00	80.00
5.	Hira Baug Ganapati	21.10	21.45	96.00	102.00
6.	Achanak Mitra Mandal, Paud Phata	21.50	22.00	83.00	84.00
7.	Samasta Gaonkari Mitra Mandal, Kothrud	22.25	22.40	89.00	90.00
8.	Akhil Bhelkenagar Mitra Mandal, Kot7hrud	23.00	23.10	90.00	93.00
9.	BalTarun Mitra Mandal, Paud Phata	23.30	23.40	72.00	78.00
10.	Jaydeep Mitra Mandal, Nr. SNTD College	23.50	00.05	76.00	78.00

Table 57. Noise Pollution Levels during Ganesh Festival in Pune city (2003)..... (contd.)

**Data 5 - Distance approx. 5 mtrs. Date-5th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Shivshakti Mitra Mandal, Bhavani Peth	21.20	21.30	95.00	96.00
2.	Bhavani Tarun Mandal, Nana Peth	21.35	21.40	90.00	92.00
3.	Jai Bhavani Mitra Mandal, Bhavani Peth	21.50	22.00	86.00	88.00
4.	Navrang Yuvak Mitra Mandal	22.10	22.20	82.00	83.00
5.	Shiv Pratap Mitra Mandal, Bhavani Peth	22.40	22.50	85.00	86.00
6.	Bharat Mitra Mandal, Bhavani Peth	23.10	23.20	82.00	83.00
7.	Shivshakti Mitra Mandal, Nana Peth	23.30	23.40	83.00	86.00
8.	Dulya Maruti Chowk, Ganesh Peth	23.50	00.05	96.00	109.00
9.	Hatti Ganapati, Sadashiv Peth	00.30	00.50	88.00	96.00
10.	Hira Baug Mitra Mandal Ganapati, Tilak Rd	01.00	01.10	88.00	92.00

**Data 6 - Distance approx. 5 mtrs. Date-6th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Kadbe Ali Talim Ganesh mandal, Shaniwar Peth	20.40	20.50	70.00	72.00
2.	Shri Ganesh Azad Mandal	21.30	21.40	70.00	76.00
3.	Dagadusheth Halwai Ganapati	22.00	22.10	71.00	73.00
4.	Babu Genu, Tulshi Baug	22.15	22.25	70.00	74.00
5.	Mahatma Phule Mandai	22.40	22.50	68.00	73.00
6.	Hira Baug Ganapati	23.10	23.10	72.00	76.00
7.	Khadakmal Area	23.55	23.55	69.00	75.30
8.	Alka Chowk	00.15	00.25	68.00	72.00
9.	Near PMC Building	01.10	01.20	70.00	71.00
10.	Nr. Balgandharva Natya Mandir	01.30	01.40	68.00	70.00

**Data 7 - Distance approx. 5 mtrs. Date-8th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Yerwada, Near Mandai, Nagar Road	20.10	20.20	74.50	80.00
2.	Pune Station, Near Bus Stand	20.30	20.40	77.00	88.00
3.	Rasta Peth, Quarter Gate	20.55	21.00	75.00	81.50
4.	Nana Peth, Shivaji Mandal	21.05	21.10	78.00	82.50
5.	Dulya Maruti Chowk, Ganesh Peth	21.30	21.35	90.00	98.00
6.	Natu Baug Mandal, Sadashiv Peth	22.05	22.10	99.00	100.00

Table 57. Noise Pollution Levels during Ganesh Festival in Pune city (2003)

**Data 7** - Distance approx. 5 mtrs. Date-8th Sept. 2003 ..... (contd...)

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
7.	Shiv Shakti Tarun Mandal, Nana Peth	21.40	21.45	98.00	104.00
8.	Apolo Tarun Mandal, Pune	22.30	22.40	85.00	90.0
9.	Rasta Peth, Power House	22.55	23.00	80.30	85.00
10.	Near City Post	23.30	23.35	70.00	75.30
11.	Khadakmal Area	23.55	24.00	68.50	73.00
12.	Hira Baug Ganapati	01.20	01.25	69.50	73.00
13.	Alka Chowk	01.40	01.45	70.20	74.00
14.	Near PMC Building	01.50	01.55	68.20	73.00

**Data 8** - Distance approx. 5 mtrs. Date-4th Sept. 2003

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Bal Tarun mandal, Karve Road, Paud Phata	19.40	19.45	72.00	78.00
2.	Omkar Mitra mandal, Karve Road, Paud Phata	19.50	19.55	70.00	81.00
3.	Jaydeep Mandal, Karve Road, Nr. SNTD College	20.00	20.05	75.00	80.00
4.	Balshivaji Mitra Mandal, Dattawadi	20.15	20.20	70.00	75.00
5.	Hira Baug Ganapati, Tilak Road	20.35	20.40	62.00	72.00
6.	Natu baug Mitra Mandal, Bajirao Road	20.45	21.00	78.00	90.00
7.	Shanipar Mitra Mandal, Nr. Chitale Sweet Home	21.05	21.25	75.00	97.00
8.	Tulsibaug Ganapati, Tulsibaug	21.20	21.25	68.00	70.00
9.	Dagdusheth Ganapati	21.30	21.35	68.00	70.00
10.	Guruji Talim Nandal	21.40	21.45	67.00	69.00
11.	Appa Balwant Chowk	21.50	21.55	68.00	72.00
12.	Shaniwar Wada	22.00	22.10	70.00	72.00
13.	Bhagatsing Mitra Mandal, Pawale Chowk	22.20	22.25	74.00	87.00
14.	Boisar Mitra Mandal, Kasaba Peth	22.30	22.35	75.00	85.00
15.	Apolo Tarun Mandal, Mangalwar Peth	22.40	22.45	75.00	85.00
16.	Pratap Mita Mandal, Rasta Peth	22.50	22.55	72.00	74.00
17.	Shivraj Mitra Mandal, Nana Peth	23.00	23.10	75.00	84.00
18.	Balvir Mitra Mandal, Ghorpadi Peth	23.15	23.20	78.00	82.00
19.	Shrimant Suvarna Mitra Mandal, Ghorpadi Peth	23.20	23.25	78.00	83.00

Table 57. Noise Pollution Levels during Ganesh Festival in Pune city (2003)..... (contd.)

**Data 9 - Distance approx. 5 mtrs. Date-4th Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Dulya Maruti Ganapati Chawk, Ganesh Peth	10.00	10.10	88.00	95.00
2.	Dagdusheth Ganapati	10.10	10.20	87.00	89.00
3.	Babu Genu Mitra Mandal, Tulshi Baug	10.30	10.40	90.00	92.00
4.	City Post	11.00	11.15	92.00	94.00
5.	Shagun Chowk, Laxmi Road	11.30	11.50	99.00	110.00
6.	Appa Balwant Chowk	12.10	12.30	92.00	99.00
7.	Alka Chowk	12.30	12.40	100.00	109.00
8.	Deccan Bridge	12.50	13.00	99.00	110.00
9.	Good Luck Chowk, Deccan	13.10	13.20	90.00	98.00
10.	Karve Road	13.30	13.40	96.00	109.00

**Data 10 - Distance approx. 5 mtrs. Date-4<sup>th</sup> Sept. 2003**

S. No.	Name of the Location	Time		Noise Level (dBA)	
		From	To	From	To
1.	Nr. Yerwada Bridge	17.30	17.50	100.00	102.00
2.	Nr. Khadki Bazar Area	18.30	18.40	103.00	105.00
3.	Nr. Janata Bank, Narayan Peth	19.20	19.30	98.00	103.00
4.	Nr. Shaniwarwada	20.20	20.40	102.00	106.00
5.	Nr. Faraskhana Area	21.40	22.00	108.00	110.00
6.	Nr Alka chowk	23.00	23.20	101.00	104.00
7.	Nr. Good Luck Chowk	23.40	00.00	102.00	105.00
8.	Nr. Lakadi Pool	00.20	00.40	104.00	106.00
9.	Nr. Bharati Vidyaeeth Bhavan Building	01.10	01.20	100.00	102.00

**Source:** Ambient Air Quality Data 2003-04, MPCB, Mumbai.

**Table 58. Noise Pollution Levels at Pimpri Chinchwad during the year 2003-04**

Sr. No	Name of Location (Class: Commercial)	Noise Levels in dbA		
		Mini	Max	Avg.
1	Nashik Phata	86.4	102.4	93.90
2	Kasarwadi	87.4	99.6	93.92
3	Pimpri Chowk	93.7	104.3	98.35
4	Chinchwad	94.8	103.7	99.80
5	Chinchwadgaon	75.6	100.8	91.90
6	Alandi Chowk	71.4	72.4	72.06
7	Nigdi Chowk	70.2	76.4	73.66
8	Bhosari gaon	67.5	77.7	74.00
9	Chinchwad	94.8	103.7	99.80
10	Chinchwadgaon	75.6	100.8	91.90
11	Alandi Chowk	71.4	72.4	72.06
12	Nigdi Chowk	70.2	76.4	73.66
13	Bhosari gaon	67.5	77.7	74.00

**Source:** Ambient Air Quality Data 2003-04, MPCB, Mumbai.

**Table 59. Water Quality data from primary sources for Pimpri Chinchwad Area (2003-04)**

**Data-1**

River	Sampling Station	Class of Water	No. of samples analysed	pH			DO			BOD			COD		
				Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Pawana	Ravet weir	A-IV	6	7.4	8.4	7.9	3.5	7.8	6.44	3	34	15	12	80	29.6
Pawana	Chinchwadgaon	A-IV	6	4	8	7.3	Nil	6.8	3.4	7	75	28	20	220	79.2
Pawana	Pimprigaon	A-IV	6	4	7.7	7.3	Nil	6.5	3.69	8.9	110	41	20	260	103
Pawana	Kasarwadi	A-IV	6	6.9	7.7	7.2	Nil	5.0	2.04	14	105	61	40	320	154
Mula	Sanghvi	A-IV	6	7	7.9	7.3	Nil	5.2	2.18	6	118	47	20	308	125
Pawana-Mula	Dapodi	A-IV	6	7	7.6	7.2	Nil	6.4	2.78	7.6	95	44	20	288	125

**Data-2**

River	Sampling station	Class of Water	No. of samples analysed	pH			DO			BOD			COD			Total Coliform		
				Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Mutha	Vitthalwadi	A-II	12	7.00	8.10	7.38	4.4	8.38	5.6	5.00	170.0	42.3	20	480	117.0	10	550	253
Mula-Mutha	Bundgarden	A-IV	12	6.86	7.68	8.80	2.7	4.20	3.5	8.00	84.0	24.2	20	140	55.2	23	900	424
Bhima	Daund	A-II	12	7.00	7.79	7.74	2.0	8.02	5.6	6.00	14.1	12.7	20	68	42.4	6	275	152
Bhima	Pargaon	A-II	12	7.13	7.68	7.50	2.3	8.59	4.9	0.78	65.0	19.5	20	180	80.0	7	275	160
Nira	Sarola Bridge	A-IV	12	7.74	7.75	7.50	6.0	7.00	6.2	5.00	8.5	6.64	--	--	--	175	550	320

**Data-3**

River	Sampling station	Class of Water	No. of samples analysed	pH			DO			BOD			COD		
				Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Indrayani	Moshi	A-II	2	7.28	8.19	7.73	5.27	7.44	6.35	6.2	8.3	7.25	20	24	22
Indrayani	Alandi	A-II	2	7.90	8.25	8.07	6.42	7.12	6.77	8.0	10.3	9.15	20	32	26
Indrayani	Theur	A-IV	1	7.27	7.27	7.27	7.90	7.90	7.90	4.6	4.6	4.60	20	20	20

**Note:** Except pH, all units are in  $\mu\text{g}/\text{m}^3$ .

**Source:** Regional Office- MPCB, Pune (2003-04).

**Table 60. Surface Water quality data from secondary sources for Pune City**

Date	Site	pH	Turbidity (NTU)	Conductivity (µs)	D.O. (mg/l)	Hardness (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Chlorides (mg/l)
09/10/01	VI	7.35	10	574	1.90*	216	57.71	158.29	45.44
	GA	7.30	29	534	0.90*	232	54.50	177.50	42.60
	SA	7.41	79	536	0.00*	216	56.11	159.89	45.44
	BU	7.44	11	543	2.10	228	60.92	167.08	34.08
24/10/01	VI	7.39	12	590	1.70*	220	61.03	158.97	52.71
	GA	7.21	34	560	1.20*	251	50.09	200.91	38.40
	SA	7.42	74	530	0.00*	228	61.06	166.94	56.52
	BU	7.51	14	550	2.40*	216	47.36	168.69	41.24
07/11/01	VI	7.32	13	584	1.50*	210	49.55	160.45	50.47
	GA	7.22	33	574	1.10*	243	59.22	183.78	44.28
	SA	7.39	77	540	0.00*	222	64.29	157.71	61.03
	BU	7.59	16	551	2.60*	230	57.01	172.99	47.32
28/11/01	VI	7.20	12.3	715	1.90*	196	36.30	159.70	62.80
	GA	7.40	13.3	517	1.60*	204	46.00	158.00	62.00
	SA	7.50	34	483	0.00*	158	46.00	112.00	62.80
	BU	7.60	35	434	2.80*	186	52.00	134.00	57.01
06/12/01	VI	7.10	11.9	695	1.60*	222	30.90	191.10	59.40
	GA	7.30	12.2	502	1.30*	217	39.00	178.00	61.00
	SA	7.50	52	398	0.00*	197	41.00	156.00	60.30
	BU	7.40	38	442	2.70*	172	50.00	122.00	51.70
19/12/01	VI	7.33	10.7	413	--	158	44.88	113.20	32.66
	GA	7.38	13.1	434	--	148	33.66	114.33	32.66
	SA	7.23	63	521	--	128	35.27	92.72	48.28
	BU	7.14	42	500	--	140	41.68	98.31	52.54

Table 60. Surface Water quality from secondary sources for Pune City (...contd.)

Date	Site	pH	Turbidity (NTU)	Conductivity ( $\mu$ s)	D.O. (mg/l)	Hardness (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Chlorides (mg/l)
26/12/01	VI	7.21	12.6	510	--	162	46.33	115.77	30.21
	GA	7.31	14.2	404	--	149	41.22	107.78	29.22
	SA	7.21	70	474	--	192	31.33	160.67	46.33
	BU	7.22	40	491	--	136	35.21	100.79	61.22
09/01/02	VI	7.23	13.6	570	--	198	37.39	160.61	50.33
	GA	7.01	23	498	--	229	49.64	179.36	54.21
	SA	7.51	63	521	--	205	59.34	145.66	55.39
	BU	7.34	54	501	--	138	39.41	98.59	50.03

**Note:** 1. Except pH, all units are in  $\mu$ g /m<sup>3</sup>. --: Not analysed.

2. VI : Vitthal Wadi; GA : Garware Bridge; SA : Sangam Bridge; BU : Bund Garden.

3. \* : Below permissible limit.

**Source:** Department of School of Health Science, University of Pune (2002).



**Table 61. Water Quality data under MINARS Project (2002 to 2005)**

**Data 1: Monitored by MPC Board under MINARS Project during the Year 2002-2003**

Station	Parameter	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Avg
Nira River Sarole Bridge	pH	7.7	6.8	6.9	7.7	7.4	7.7	7.8	8.3	8.6	7.1	7.4	7.2	7.55
	BOD	7.0	5.5	7.0	7.0	5.0	13.0	8.0	4.0	5.0	5.0	4.8	7.0	6.53
	COD	24.0	32.0	20.0	24.0	16.0	48.0	16.0	24.0	20.0	16.0	---	---	24.00
	DO	6.7	7.3	5.9	5.0	5.8	6.3	5.8	7.3	5.3	6.1	7.0	7.0	6.10
	Tot.Coliform	120.0	110.0	175.0	110.0	200.0	120.0	120.0	110.0	70.0	140.0	120.0	250.0	137.08
Bhima River	pH	7.0	---	---	7.2	---	---	7.2	---	---	6.8	---	---	7.05
	BOD	6.0	---	---	5.5	---	---	8.0	---	---	9.0	---	---	7.13
	COD	20.0	---	---	24.0	---	---	24.0	---	---	24.0	---	---	23.00
	DO	5.0	---	---	5.4	---	---	4.8	---	---	2.9	---	---	4.53
	Tot.Coliform	225.0	---	---	150.0	---	---	175.0	---	---	175.0	---	---	181.25
Bhima River Pargaon	pH	6.9	---	---	7.4	---	---	7.3	---	---	7.0	---	---	7.15
	BOD	19.0	---	---	4.5	---	---	7.5	---	---	8.0	---	---	9.75
	COD	40.0	---	---	16.0	---	---	24.0	---	---	24.0	---	---	26.00
	DO	3.4	---	---	5.7	---	---	5.5	---	---	3.2	---	---	4.45
	Tot.Coliform	250.0	---	---	175.0	---	---	175.0	---	---	225.0	---	---	206.25
Bhima River D/S of bund garden	pH	7.0	---	---	7.5	---	---	7.1	---	---	6.8	---	---	7.10
	BOD	20.0	---	---	58.0	---	---	15.0	---	---	26.0	---	---	29.75
	COD	80.0	---	---	96.0	---	---	32.0	---	---	88.0	---	---	74.00
	DO	4.1	---	---	0.5	---	---	2.5	---	---	2.6	---	---	2.43
	Tot.Coliform	140.0	---	---	250.0	---	---	120.0	---	---	115.0	---	---	156.25
Bhima River Pune D/S of Vitthalwadi	pH	7.0	---	---	7.5	---	---	7.3	---	---	7.1	---	---	7.23
	BOD	11.0	---	---	44.0	---	---	9.5	---	---	10.0	---	---	18.63
	COD	24.0	---	---	80.0	---	---	24.0	---	---	32.0	---	---	40.00
	DO	3.5	---	---	1.2	---	---	4.8	---	---	3.7	---	---	3.30
	Tot.Coliform	175.0	---	---	275.0	---	---	275.0	---	---	175.0	---	---	225.00

Table 61. Water Quality data under MINARS Project (2002-2005) ..... (contd.)

**Data 2: Monitored by MPC Board under MINARS Project during the Year 2003-2004**

Station	Parameter	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Avg
Nira River Sarole Bridge	pH	7.4	7.4	7.6	7.8	7.5	7.2	7.8	7.3	7.5	7.8	6.9	8.3	7.5
	BOD	7.0	5.0	9.8	8.5	6.0	6.0	5.0	13.0	6.2	5.0	4.0	3.0	6.5
	DO	7.0	6.3	6.6	5.8	7.0	7.0	7.0	4.5	5.9	7.5	7.2	7.0	6.6
	Tot.Coliform	425.0	130.0	250.0	120.0	170.0	550.0	250.0	175.0	225.0	250.0	225.0	900.0	305.8
Bhima River	pH	7.3	---	---	7.7	---	---	7.8	---	---	8.0	---	---	7.7
	BOD	20.0	---	---	6.0	---	---	5.0	---	---	6.0	---	---	9.3
	DO	2.0	---	---	6.6	---	---	6.0	---	---	5.4	---	---	5.0
	Tot.Coliform	275.0	---	---	250.0	---	---	175.0	---	---	225.0	---	---	231.3
Bhima River Pargaon	pH	7.3	---	---	7.6	---	---	7.5	---	---	8.0	---	---	7.6
	BOD	18.0	---	---	7.0	---	---	5.6	---	---	7.0	---	---	9.4
	DO	3.1	---	---	6.5	---	---	4.0	---	---	4.8	---	---	4.6
	Tot.Coliform	200.0	---	---	275.0	---	---	275.0	---	---	250.0	---	---	250.0
Bhima River D/S of bund garden	pH	7.0	---	---	7.3	---	---	7.6	---	---	8.5	---	---	7.6
	BOD	84.0	---	---	8.0	---	---	8.0	---	---	23.0	---	---	30.8
	DO		---	---	4.2	---	---	3.6	---	---	1.3	---	---	3.0
	Tot.Coliform	900.0	---	---	150.0	---	---	350.0	---	---	425.0	---	---	456.3
Bhima River Pune D/S of Vitthalwadi	pH	7.0	---	---	7.3	---	---	7.6	---	---	8.3	---	---	7.6
	BOD	80.0	---	---	8.0	---	---	6.0	---	---	10.0	---	---	26.0
	DO		---	---	4.4	---	---	5.4	---	---	3.9	---	---	4.6
	Tot.Coliform	550.0			175.0			275.0			350.0			337.5

Table 61. Water Quality data under MINARS Project (2002-2005) ..... (contd.)

**Data 3:** Monitored by MPC Board under MINARS Project during the Year 2004-2005

Station	Parameter	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Avg
Nira River Sarole Bridge	PH	7.7	7.2	8.2	7.74	7.5	7.6	8.33	8.5	7.6	7.8	7.64	7.3	7.78
	BOD	4.0	4.0	8.0	7.0	5.5	5.0	7.4	5.8	6.0	3.2	5.6	3.0	5.38
	DO	6.5	6.5	5.2	6.3	7.1	6.8	5.4	6.7	6.5	6.8	6.42	6.9	6.43
	Tot.Coliform	175.0	175.0	200.0	200.0	275.0	350.0	250.0	425.0	350.0	550.0	120.0	14.0	257.0
Bhima River	PH	8.6	---	---	7.8	---	---	8.38	---	---	7.0	---	---	7.95
	BOD	7.0	---	---	7.0	---	---	7.0	---	---	4.2	---	---	6.30
	DO	5.1	---	---	6.3	---	---	6.2	---	---	5.3	---	---	5.73
	Tot.Coliform	250	---	---	250	---	---	200	---	---	350	---	---	262.5
Bhima River Pargaon	PH	8.5	---	---	7.88	---	---	8.35	---	---	7.0	---	---	7.93
	BOD	10.0	---	---	7.5	---	---	7.4	---	---	5.6	---	---	7.63
	DO	4.1	---	---	5.9	---	---	5.6	---	---	5.5	---	---	5.28
	Tot.Coliform	275	---	---	225	---	---	225	---	---	200	---	---	231.25
Bhima River D/S of bund garden	PH	7.0	---	---	7.27	---	---	8.14	---	---	6.9	---	---	7.33
	BOD	9.0	---	---	42.0	---	---	8.30	---	---	4.8	---	---	15.95
	DO	4.2	---	---	0.6	---	---	3.8	---	---	4.2	---	---	3.20
	Tot.Coliform	350	---	---	250	---	---	275	---	---	550	---	---	365.25
Bhima River Pune D/S of Vitthalwadi	PH	7.0	---	---	7.58	---	---	8.31	---	---	7.4	---	---	7.57
	BOD	4.0	---	---	6.0	---	---	10.6	---	---	6.2	---	---	6.70
	DO	6.1	---	---	6.7	---	---	3.3	---	---	3.2	---	---	4.83
	Tot.Coliform	225	---	---	225	---	---	250	---	---	250	---	---	237.5

**Note:** 1. Except pH, all units are in  $\mu\text{g}/\text{m}^3$ .

2. \* Monitoring done on quarterly basis.

**Source:** Environmental Status Report, MPCB (2003-04).

**Table 62. Mula-Mutha River Water Quality data-Pune city**

	<b>Khadakwasla</b>	<b>Vitthalwadi</b>	<b>Garware</b>	<b>Sangam Bridge</b>	<b>Aundh</b>	<b>Holkar Bridge</b>	<b>Bund Garden</b>
<b>Jan. 99</b>							
pH	7.90	7.40	7.30	6.20	6.90	8.10	7.40
DO	8.10	5.10	0.40*	Nil	Nil	6.70	Nil
BOD	9.00	18.00	50.00*	45.00*	41.00*	30.00*	58.00*
COD	16.00	32.00	84.00	80.00	72.00	48.00	96.00
<b>Feb. 99</b>							
pH	7.80	6.90	6.70	6.30	6.80	7.50	6.80
DO	7.90	4.86	Nil	Nil	Nil	7.29	0.40*
BOD	10.00	17.00	60.00*	48.00*	50.00*	38.00*	56.00*
COD	20.00	32.00	108.00	88.00	92.00	68.00	104.00
<b>Mar. 99</b>							
pH	8.60	7.80	7.70	7.21	7.58	7.68	8.34
DO	7.49	3.45	Nil	Nil	Nil	3.85*	1.20*
BOD	7.00	21.00	64.00*	98.00*	54.00*	42.00*	78.00*
COD	16.00	40.00	116.00	192.00	104.00	76.00	148.00
<b>Apr. 99</b>							
pH	8.20	7.60	6.80	6.50	7.50	7.70	7.20
DO	7.49	1.21	Nil	Nil	Nil	3.20*	2.03*
BOD	9.00	17.00	63.00*	88.00*	63.00*	37.00*	60.00*
COD	16.00	36.00	124.00	178.00	112.00	88.00	132.00
<b>May 99</b>							
PH	8.4	7.91	7.59	6.98	7.28	7.45	7.33
DO	6.28	2.02	Nil	Nil	0.41*	3.85*	1.21*
BOD	11	21	56*	80*	58*	49*	75.0*
COD	20	44	132	168	128	102	156
<b>Jun. 99</b>							
PH	--	7.2	7.6	6.4	6.7	7.1	6.6
DO	--	1.6	Nil	Nil	5.2	2.4*	3.2*
BOD	--	5.4	14.7	56*	39.6*	24.42	34.08*
COD	--	10	30	112	90	62	71
<b>Jul. 99</b>							
PH	7.8	7.5	7.6	7.2	8.1	8	7.64

	Khadakwasla	Vitthalwadi	Garware	Sangam Bridge	Aundh	Holkar Bridge	Bund Garden
DO	6.04	2.01*	2.01*	2.01*	4.02*	4.83*	4.02*
BOD	4.4	6.12	18.5	47.84*	34.56*	--	32.64*
COD	8	12	36	92	72	--	68
Aug. 99							
PH	6.5	6.9	7	6.1	6.2	6.6	7.1
DO	9.1	7.15	Nil	Nil	6.9	2.7*	7.1
BOD	2.8	4.8	24.99	59.94*	63.21*	41.83*	31.92*
COD	6	11	49	111	129	89	57
Sep. 99							
PH	7.9	8.1	7.2	7.8	8.1	8.1	7.6
DO	7.9	8.1	4.5*	Nil	6.9	6.7	Nil
BOD	7.98	8.16	51.5*	40.59*	23.46	25.38	59.28*
COD	19	17	103	99	51	47	114
Oct. 99							
PH	7.9	8.4	7.1	7.15	7.45	7.2	7.4
DO	7.6	4.6	Nil	0.8*	5.8	2*	Nil
BOD	5.9	56.4*	50.5*	47.53*	31.2*	20.67	30.09
COD	13	120	101	97	65	39	59
Jan. 2000							
PH	7.7	7.5	7.1	5.9	6.9	8	7.1
DO	7.9	5.3	0.6*	Nil	5.8	Nil	Nil
BOD	6.3	15.3	44*	39.22*	24.5	26.84	38.34*
COD	15	30	80	74	50	61	71

**Source:** Department of School of Health Science, University of Pune (2002).

**Note:** '--': Not Analysed / Not Available

\*: Exceeding permissible limit.

**Table 63. Ground Water Quality Data for Pune District**

**Data 1: Tal. Indapur and Tal. Daund**

Particulars	Indapur		Daund					
	Gaikwad Well Bhavaninagar	Nimbalkar Well, Sansar, Bhavaninagar	Kurkumbhgaon		Kolange Vasti		Pandherewadi	
Date of Sampling	25/01/2002	25/01/2002	04/01/2002	15/12/2001	04/01/2002	15/12/2001	04/01/2002	15/12/2001
pH	8.14	8.33	8.40	8.03	8.32	8.20	8.21	8.44
Dissolved Oxygen	---	---	4.21	1.10	3.99	4.88	2.88	4.98
B.O.D. 27°C (3 days)	5.20	6.40	8.60	36.00	10.20	8.20	14.00	4.60
C.O.D.	20.00	28.00	24.00	100.00	28.00	20.00	40.00	12.00
Sulphates	136.00	140.00	90.40	70.80	51.70	163.00	64.70	58.70
Chlorides	60.00	45.00	110.00	345.00	85.00	130.00	160.00	100.00
Hardness	---	---	270.00	388.00	160.00	308.00	460.00	240.00
T.D.S.	404.00	520.00	---	---	---	---	---	---

**Data 2: Uruli Devachi, Tal. ....**

Particulars	Village -Uruli Devachi, Tal.									
	Shri. L.D. Bhadle Well Water			Shri. V.B. Bhadle Well Water				Shri. D.S. Bhadle Well Water		
Date of Sampling	04.02.03	27.02.03	11.06.03	04.02.03	27.02.03	11.06.03	18.11.03	27.02.03	11.06.03	18.11.03
pH	NA	8.16	7.45	NA	8.13	4.47	7.48	8.21	7.74	7.32
B.O.D.	42	20	12	5	16	5.6	15.4	18	6.2	11.8
D.O.	2.6	5.2	5.6	6.9	5.5	6.9	5.67	6.3	6.82	4.98
Chlorides	730	735	475	725	765	235	72	1800	450	84
Hardness	1060	880	400	1160	700	368	1636	960	328	836

Table 63. Ground Water Quality Data for Pune District

Data 2: Village-Kharabwadi, Tal. .... ( ... contd.)

Particulars	Kharabwadi							
	Shri Bajirao Somvanshi Well Water		Sudam Kharabi Well Water		Rambau Kharabi Well Water		Smt. Hausabai Kad Well water	Dasharath Kad Well Water
Date of Sampling	20.02.04	14.07.03	20.02.04	14.07.03	20.02.04	14.07.03	14.07.03	20.02.03
pH	8.14	7.80	8.02	7.65	7.4	7.26	7.34	7.64
B.O.D.	10.00	3.70	11.00	8.65	5.0	6.30	3.10	9.00
C.O.D	88.00	8.00	80.00	20.00	96.0	20.00	8.00	84.00
D.O.	5.8.00	5.77	5.40	7.20	7.0	7.56	5.58	5.00
Chlorides	140.00	80.00	160.00	135.00	305.0	245.00	46.00	130.00
Hardness	100.00	120.00	700.00	472.00	1100.0	1610.00	340.00	430.00

**Note:** 1) All results are in PPM except pH

2) N.A. or '--' indicates 'Not Analysed'

**Source:** Regional Office, MPCB, Pune (2002).