

## WATER QUALITY OF RIVER NAGAVALI - 2012

Penta U/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l
Jan	2012	20	7.9	7.2	1.1	8.9	302	0.058
Feb		29	8.1	8.1	1.4	8.6	280	1.474
Mar		34	7.4	7.1	1.7	9.7	318	0.994
Apr		35	7.8	7.1	1.1	17.7	218	0.564
May		36	8.3	7.2	2.2	10.9	309	0.714
June		28	8.2	7.2	1.7	8.2	154	0.707
July		27	7.8	6.9	1.5	10.0	195	1.337
Aug		25	8.4	7.2	2.6	19.2	151	0.191
Sep		26	8.4	7.4	1.7	7.4	184	0.638
Oct		22	7.8	7.5	1.3	9.9	212	0.175
Nov		21	8.2	7.6	1.2	8.6	203	0.986
Dec		23	8.1	7.4	2.0	10.4	235	0.117
<b>Minimum</b>		<b>20.0</b>	<b>7.4</b>	<b>6.9</b>	<b>1.1</b>	<b>7.4</b>	<b>151.0</b>	<b>0.1</b>
<b>Maximum</b>		<b>36.0</b>	<b>8.4</b>	<b>8.1</b>	<b>2.6</b>	<b>19.2</b>	<b>318.1</b>	<b>1.5</b>
<b>Average</b>		<b>27.2</b>	<b>8.0</b>	<b>7.3</b>	<b>1.6</b>	<b>10.8</b>	<b>230.0</b>	<b>0.7</b>

Jaykaypur D/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l
Jan	2012	20	8.2	6.7	2.3	18.9	305	0.799
Feb		28	8.3	6.0	2.2	16.9	286	1.177
Mar		28	8.3	7.1	2.2	17.8	316	0.933
Apr		35	7.9	6.8	1.6	18.8	222	0.475
May		33	8.2	7.3	3.1	30.9	414	1.268
June		28	7.5	6.7	2.6	28.9	199	0.847
July		27	8.0	6.6	2.4	22.1	201	1.796
Aug		25	8.4	6.9	3.9	29.2	181	1.199
Sep		24	8.0	6.8	3.1	21.1	274	0.314
Oct		21	8.4	7.1	2.3	17.9	204	0.602

Nov	21	8.1	6.8	1.9	13.8	264	3.782
Dec	23	8.2	6.9	3.4	28.9	296	0.080
<b>Minimum</b>	<b>20.0</b>	<b>7.5</b>	<b>6.0</b>	<b>1.6</b>	<b>13.8</b>	<b>181</b>	<b>0.1</b>
<b>Maximum</b>	<b>35.0</b>	<b>8.4</b>	<b>7.3</b>	<b>3.9</b>	<b>30.9</b>	<b>414</b>	<b>3.8</b>
<b>Average</b>	<b>26.1</b>	<b>8.1</b>	<b>6.8</b>	<b>2.6</b>	<b>22.1</b>	<b>263</b>	<b>1.1</b>

### Raygada D/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l
Jan	2012	19	8.3	7.3	1.4	10.3	659	0.826
Feb		27	8.2	5.9	2.0	10.4	254	1.217
Mar		33	7.5	6.9	1.7	14.7	283	0.081
Apr		30	7.7	7.2	2.0	20.2	160	3.549
May		31	8.6	6.9	3.4	29.0	313	0.658
June		26	7.8	7.4	1.8	14.6	265	0.914
July		26	8.0	6.8	1.6	16.1	198	1.884
Aug		24	8.4	7.3	2.0	17.6	185	1.278
Sep		23	8.0	7.2	1.8	14.8	259	3.354
Oct		21	8.4	7.6	1.6	15.8	213	0.574
Nov		22	8.2	7.7	1.7	13.8	224	2.478
Dec		21	8.1	7.6	2.3	11.8	249	0.359
<b>Minimum</b>		<b>19.0</b>	<b>7.5</b>	<b>5.9</b>	<b>1.4</b>	<b>10.3</b>	<b>160.0</b>	<b>0.1</b>
<b>Maximum</b>		<b>33.0</b>	<b>8.6</b>	<b>7.7</b>	<b>3.4</b>	<b>29.0</b>	<b>659.0</b>	<b>3.5</b>
<b>Average</b>		<b>25.3</b>	<b>8.1</b>	<b>7.2</b>	<b>1.9</b>	<b>15.8</b>	<b>271.9</b>	<b>1.4</b>

NH <sub>4</sub> -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml	S.I.	D.I.	Class	Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
0.112	2600	2100	5.6	0.74	C	0.006	28	ND
0.280	3800	2100				0.005	88	4
0.28	4000	2100				ND	94	6
0.112	9200	5400	4.5	0.76	C	0.053	96	ND
0.448	790	490				0.044	112	4
0.280	11000	7000				0.006	76	4
0.112	4000	2600				0.026	76	BDL
0.900	790	490				0.027	68	16
0.112	9200	3500				0.033	76	4
0.112	2200	790	6.33	0.78	B	0.004	78	BDL
0.224	2200	790				0.029	96	BDL
0.112	2400	790	--	--	--	0.098	104	BDL
<b>0.112</b>	<b>790</b>	<b>490</b>	<b>4.50</b>	<b>0.74</b>	<b>0.0</b>	<b>0.0</b>	<b>28.0</b>	<b>4.0</b>
<b>0.900</b>	<b>11000</b>	<b>7000</b>	<b>6.33</b>	<b>0.78</b>	<b>0.0</b>	<b>0.1</b>	<b>112.0</b>	<b>16.0</b>
<b>0.257</b>	<b>4348</b>	<b>2346</b>	<b>5.48</b>	<b>0.76</b>	<b>#DIV/0!</b>	<b>0.0</b>	<b>82.7</b>	<b>6.3</b>

NH <sub>4</sub> -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml				Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
0.112	4700	2700	5.6	0.64	C	0.010	110	8
0.280	6300	3300				0.005	108	4
0.73	4600	2300				0.006	114	6
0.168	11000	7900	5.5	0.56	C	0.410	100	ND
0.336	5400	2400				0.042	132	2
0.392	9400	3300				0.002	76	BDL
0.112	7900	3300				0.030	76	BDL
0.450	2400	790				0.018	64	16
0.336	3500	1100				0.021	80	BDL
0.392	1700	460	6.4	0.83	B	0.042	88	12

0.224	3500	1100				0.019	96	BDL
0.224	1300	490	--	--	--	0.027	100	BDL
<b>0.112</b>	<b>1300.0</b>	<b>460</b>	<b>5.50</b>	<b>0.56</b>	<b>0.0</b>	<b>0.0</b>	<b>64.0</b>	<b>2.0</b>
<b>0.730</b>	<b>11000.0</b>	<b>7900</b>	<b>6.40</b>	<b>0.83</b>	<b>0.0</b>	<b>0.4</b>	<b>132.0</b>	<b>16.0</b>
<b>0.313</b>	<b>5141.7</b>	<b>2428</b>	<b>5.83</b>	<b>0.68</b>	<b>#DIV/0!</b>	<b>0.1</b>	<b>95.3</b>	<b>8.0</b>

NH <sub>4</sub> -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml				Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
0.056	3100	1700	6	0.72	C	0.012	108	4
0.168	3500	1700				0.005	96	8
0.56	5800	3100				0.003	106	ND
0.224	13000	7900	5.3	0.58	C	0.074	64	ND
0.336	230	130				0.039	100	8
0.112	4600	2300				0.006	88	BDL
0.112	9400	4600				0.031	80	BDL
0.350	5400	1300				0.020	64	12
0.224	3500	1700				0.023	76	BDL
0.392	2400	490	6.75	0.6	B	0.046	86	12
0.336	1300	490				0.026	92	BDL
0.224	2800	940	--	--	--	0.019	108	BDL
<b>0.056</b>	<b>230.0</b>	<b>130</b>	<b>5.30</b>	<b>0.58</b>	<b>0.0</b>	<b>0.0</b>	<b>64.0</b>	<b>4.0</b>
<b>0.560</b>	<b>13000.0</b>	<b>7900</b>	<b>6.75</b>	<b>0.72</b>	<b>0.0</b>	<b>0.1</b>	<b>108.0</b>	<b>12.0</b>
<b>0.258</b>	<b>4585.8</b>	<b>2196</b>	<b>6.02</b>	<b>0.63</b>	<b>#DIV/0!</b>	<b>0.0</b>	<b>89.0</b>	<b>8.8</b>

Hardness CaCO <sub>3</sub> , mg/l	Ca as CaCO <sub>3</sub> , mg/l	Mg as CaCO <sub>3</sub> , mg/l	Chloride , mg/l	Sulphate , mg/l	PO <sub>4</sub> <sup>3-</sup> -P, mg/l	Flouride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
26	16	10	26.1	6.3	0.017	0.343	2.5	110
104	88	16	20.2	14.75	0.142	0.26	2.2	37
92	72	20	24.9	12.38	0.031	0.322	1.96	64
94	66	28	17.3	4.59	0.074	0.254	2.80	79
112	72	40	26.7	16.73	0.062	0.266	1.68	158
70	44	26	6.1	5.64	0.049	0.247	1.12	48
72	56	16	14.8	1.1	0.035	0.262	2.24	288
80	60	20	12.4	4.59	0.018	0.210	2.80	154
52	44	18	16.5	2.18	0.240	0.207	1.36	330
80	50	30	14.6	5.6	0.028	0.198	2.2	74
78	56	22	9.8	2.0	0.034	0.231	3.36	48
90	60	30	25.6	2.6	0.007	0.208	2.2	48
<b>26</b>	<b>16</b>	<b>10</b>	<b>6.1</b>	<b>1.08</b>	<b>0.007</b>	<b>0.198</b>	<b>1.12</b>	<b>37</b>
<b>112</b>	<b>88</b>	<b>40</b>	<b>26.7</b>	<b>16.73</b>	<b>0.240</b>	<b>0.343</b>	<b>3.36</b>	<b>330</b>
<b>79</b>	<b>57</b>	<b>23</b>	<b>17.9</b>	<b>6.54</b>	<b>0.061</b>	<b>0.251</b>	<b>2.21</b>	<b>120</b>

Hardness CaCO <sub>3</sub> , mg/l	Ca as CaCO <sub>3</sub> , mg/l	Mg as CaCO <sub>3</sub> , mg/l	Chloride , mg/l	Sulphate , mg/l	PO <sub>4</sub> <sup>3-</sup> -P, mg/l	Flouride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
88	66	22	28.2	5.5	0.067	0.313	2.5	34
104	68	36	20.2	6.53	0.048	0.26	3.9	62
106	70	36	30.9	11.58	0.047	0.323	0.84	30
88	60	28	19.2	9.62	0.074	0.268	3.36	92
134	90	44	27.9	21.78	0.064	0.264	1.68	200
86	52	34	13.9	13.47	0.056	0.261	2.24	112
78	58	20	16.6	4.6	0.072	0.273	2.24	244
100	68	32	13.5	10.55	0.011	0.203	1.68	164
112	78	24	20.5	12.18	0.132	0.200	3.52	382
92	58	34	19.2	9.3	0.032	0.201	3.7	29

92	62	30	12.7	13.76	0.038	0.228	7.84	72
100	68	32	35.7	8.3	0.033	0.209	4.5	56
<b>78</b>	<b>52.0</b>	<b>20.0</b>	<b>12.7</b>	<b>4.55</b>	<b>0.011</b>	<b>0.200</b>	<b>0.84</b>	<b>29.0</b>
<b>134</b>	<b>90.0</b>	<b>44.0</b>	<b>35.7</b>	<b>21.78</b>	<b>0.132</b>	<b>0.323</b>	<b>7.84</b>	<b>382.0</b>
<b>98</b>	<b>66.5</b>	<b>31.0</b>	<b>21.5</b>	<b>10.60</b>	<b>0.056</b>	<b>0.251</b>	<b>3.17</b>	<b>123.1</b>

Hardness CaCO <sub>3</sub> , mg/l	Ca as CaCO <sub>3</sub> , mg/l	Mg as CaCO <sub>3</sub> , mg/l	Chloride , mg/l	Sulphate , mg/l	PO <sub>4</sub> <sup>3-</sup> -P, mg/l	Flouride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
100	72	28	24.2	8.5	0.043	0.298	1.7	59
168	64	24	20.2	6.33	0.031	0.26	5.0	46
98	54	44	24.0	12.28	0.043	0.312	1.40	83
54	36	18	12.5	6.19	0.191	0.270	3.36	104.4
120	92	28	24.2	17.72	0.048	0.268	1.96	98
100	80	20	25.9	16.34	0.096	0.280	1.68	126
80	56	24	14.8	5.6	0.051	0.261	3.92	236
96	64	32	13.5	8.39	0.050	0.211	3.52	152
96	80	16	18.5	18.91	0.537	0.204	3.52	354
98	60	38	14.6	8.3	0.029	0.176	3.9	49
80	58	22	15.6	2.07	0.029	0.224	6.72	60
92	66	26	18.7	1.3	0.049	0.201	2.2	42
<b>54.0</b>	<b>36.0</b>	<b>16.0</b>	<b>12.5</b>	<b>1.28</b>	<b>0.029</b>	<b>0.176</b>	<b>1.40</b>	<b>42.0</b>
<b>168.0</b>	<b>92.0</b>	<b>44.0</b>	<b>25.9</b>	<b>18.91</b>	<b>0.537</b>	<b>0.312</b>	<b>6.72</b>	<b>354.0</b>
<b>98.5</b>	<b>65.2</b>	<b>26.7</b>	<b>18.9</b>	<b>9.33</b>	<b>0.100</b>	<b>0.247</b>	<b>3.25</b>	<b>117.5</b>

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
192	148	19	17.0	3.04	0.045	1.1	1.4	4.4
152	168	8.3	12.7	2.7	0.053	2.8	2.3	7.7
162	192	11	15.4	2.6	0.042	0.9	4.0	3.8
138	200	26	11.8	3.5	0.023	2.6	2.8	7.2
183	310	51.5	16.1	4.0	0.076	0.6	3.8	4.2
100	120	69.3	3.7	2.53	0.083	--	--	--
124	380	124.1	9.0	2.7	0.030	--	--	--
98	228	104.6	7.94	2.79	0.023	--	--	--
102	404	79.7	7.86	3.9	0.064	--	--	--
116	168	36.2	7.84	3.56	0.015	--	--	--
112	140	13.2	6.9	1.2	0.038	--	--	--
145	168	18.9	14.9	2.6	0.028	--	--	--
<b>98</b>	<b>120</b>	<b>8.3</b>	<b>3.7</b>	<b>1.2</b>	<b>0.015</b>	<b>0.6</b>	<b>1.4</b>	<b>3.8</b>
<b>192</b>	<b>404</b>	<b>124.1</b>	<b>17.0</b>	<b>4.0</b>	<b>0.083</b>	<b>2.8</b>	<b>4.0</b>	<b>7.7</b>
<b>135</b>	<b>219</b>	<b>46.8</b>	<b>10.9</b>	<b>2.9</b>	<b>0.043</b>	<b>1.6</b>	<b>2.8</b>	<b>5.4</b>

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
194	148	7.1	18.9	3.09	0.011	1.6	1.3	8.6
156	188	11.0	13.2	3.0	0.038	2.4	4.7	9.7
182	204	7	20.0	3.8	0.072	1.0	7.6	9.6
137	204	25	12.6	3.5	0.079	2.6	4.7	9.6
225	370	67.1	18.9	4.5	0.007	0.6	4.3	7.8
129	226	86.1	7.2	4.80	0.026	--	--	--
130	342	130.7	8.7	2.6	0.079	--	--	--
117	244	95.8	8.10	2.79	0.007	--	--	--
153	404	91.2	10.17	2.0	0.011	--	--	--
132	132	18.1	11.46	3.62	0.046	--	--	--

148	182	21.3	11.6	1.6	0.057	--	--	--
170	176	11.8	22.6	2.7	0.042	--	--	--
<b>117.0</b>	<b>132.0</b>	<b>7.0</b>	<b>7.2</b>	<b>1.6</b>	<b>0.007</b>	<b>0.6</b>	<b>1.3</b>	<b>7.8</b>
<b>225.0</b>	<b>404.0</b>	<b>130.7</b>	<b>22.6</b>	<b>4.8</b>	<b>0.079</b>	<b>2.6</b>	<b>7.6</b>	<b>9.7</b>
<b>156.1</b>	<b>235.0</b>	<b>47.7</b>	<b>13.6</b>	<b>3.2</b>	<b>0.040</b>	<b>1.7</b>	<b>4.5</b>	<b>9.1</b>

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
616	188	7.6	15.6	3.10	0.076	2.0	2.4	9.9
142	156	6.2	12.9	2.9	0.007	2.3	3.5	8.9
173	228	6	15.1	3.8	0.079	1.0	5.1	8.7
100	177	81	8.5	5.0	0.057	2.4	3.9	7.8
180	248	46.2	15.6	4.0	0.004	0.6	3.9	7.8
168	280	95.2	15.2	5.25	0.007		--	--
129	320	125.9	8.6	2.8	0.091		--	--
116	226	98.7	8.24	2.80	0.068		--	--
143	446	77.0	9.77	2.3	0.034		--	--
138	148	24.2	7.92	3.77	0.048		--	--
128	158	11.6	8.7	1.7	0.054		--	--
143	158	12.4	10.7	2.9	0.056		--	--
<b>100.0</b>	<b>148.0</b>	<b>6.0</b>	<b>7.9</b>	<b>1.7</b>	<b>0.004</b>	<b>0.6</b>	<b>2.4</b>	<b>7.8</b>
<b>616.0</b>	<b>446.0</b>	<b>125.9</b>	<b>15.6</b>	<b>5.3</b>	<b>0.091</b>	<b>2.4</b>	<b>5.1</b>	<b>9.9</b>
<b>181.3</b>	<b>227.8</b>	<b>49.3</b>	<b>11.4</b>	<b>3.4</b>	<b>0.048</b>	<b>1.7</b>	<b>3.8</b>	<b>8.6</b>



m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Hg, micro gm/l		
12	5.8	3.8	1286	BDL	BDL	
27	7.0	7.2	1176			
5	4.4	5.8	782	BDL	ND	ND
13	7.0	7.8	2405	BDL	BDL	
34	4.3	6.7	1090	BDL		
77	--	--	5430	--	0.022	
25	--	--	10157	--	BDL	
38	--	--	9300	--	BDL	
25	--	--	9720	--	--	
44	--	--	8860	--	--	
25	--	--	980	--	BDL	
45	--	--	1360	--	BDL	
<b>5.0</b>	<b>4.3</b>	<b>3.8</b>	<b>782</b>	<b>0.0</b>		
<b>77.0</b>	<b>7.0</b>	<b>7.8</b>	<b>10157</b>			
<b>30.9</b>	<b>5.7</b>	<b>6.3</b>	<b>4379</b>	<b>#DIV/0!</b>		

m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Hg, micro gm/l		
18	6.4	2.8	1349	BDL	BDL	
18	3.3	9.9	1397			
10	7.8	5.3	586	BDL	ND	
27	6.8	19.3	2952	BDL	BDL	
46	5.8	12.8	1210	BDL		
37	--	--	6930	--	0.05	
35	--	--	8920	--	BDL	
28	--	--	9400	--	BDL	
43	--	--	8670	--	--	
56	--	--	8980	--	--	

44	--	--	1860	--	BDL
20	--	--	830	--	BDL
<b>10.0</b>	<b>3.3</b>	<b>2.8</b>	<b>586.0</b>		
<b>56.0</b>	<b>7.8</b>	<b>19.3</b>	<b>9400.0</b>		
<b>31.8</b>	<b>6.0</b>	<b>10.0</b>	<b>4423.7</b>		

m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Hg, micro gm/l	
13	0.8	2.7	1814	BDL	BDL
15	2.5	11.1	936		
10	6.3	5.4	1008	BDL	ND
12	5.4	12.6	53280	BDL	BDL
48	5.2	12.6	750	BDL	
28	--	--	6980	--	BDL
76	--	--	9235	--	BDL
32	--	--	8840	--	BDL
37	--	--	8740	--	--
48	--	--	7430	--	--
29	--	--	1180	--	BDL
13	--	--	900	--	BDL
<b>10.0</b>	<b>0.8</b>	<b>2.7</b>	<b>750.0</b>		
<b>76.0</b>	<b>6.3</b>	<b>12.6</b>	<b>53280.0</b>		
<b>30.1</b>	<b>4.0</b>	<b>8.9</b>	<b>8424.4</b>		