|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameters | Factor 1 | | Factor 2 | | Factor 3 | | Factor 4 | |
|  | Winter | Summer | Winter | Summer | Winter | Summer | Winter | Summer |
| Temperature | **0.91** | **0.94** | -0.04 | 0.08 | -0.04 | 0.09 | -0.19 | 0.1 |
| pH | **-0.86** | **-0.97** | 0.50 | 0.08 | 0.01 | -0.19 | -0.08 | 0.01 |
| EC | 0.21 | 0.18 | **0.90** | **0.97** | 0.14 | -0.10 | 0.05 | -0.01 |
| TSS | 0.51 | **0.78** | -0.13 | 0.2 | 0.13 | 0.40 | **0.60** | 0.001 |
| Turbidity | **0.82** | **0.68** | 0.28 | 0.28 | -0.04 | 0.35 | -0.39 | -0.31 |
| Salinity | -0.21 | 0.27 | **0.75** | **0.86** | 0.09 | 0.13 | 0.18 | 0.15 |
| TDS | 0.43 | 0.40 | -0.10 | 0.25 | 0.04 | **0.54** | **0.75** | 0.33 |
| DO | **-0.88** | **-0.98** | -0.08 | 0.02 | 0.05 | 0.0006 | -0.15 | 0.11 |
| COD | **0.89** | **0.91** | -0.05 | 0.08 | 0.14 | 0.2 | 0.41 | -0.25 |
| NH4. | **0.92** | **0.93** | 0.05 | 0.11 | -0.03 | 0.17 | 0.32 | -0.2 |
| NO3 | **0.86** | **0.69** | 0.01 | -0.23 | -0.20 | 0.05 | 0.32 | 0.29 |
| Phosphate | 0.21 | 0.51 | **0.86** | **0.68** | 0.28 | 0.03 | 0.24 | -0.32 |
| Sulfates | 0.02 | 0.16 | **0.67** | 0.00007 | 0.42 | -0.03 | 0.49 | **-0.68** |
| K | -0.22 | **-0.49** | 0.37 | 0.44 | **0.80** | -0.16 | -0.35 | 0.08 |
| Ca | -0.01 | -0.33 | 0.44 | **0.59** | **0.87** | 0.18 | -0.16 | 0.42 |
| Mg | 0.05 | **-0.66** | 0.38 | 0.41 | **0.87** | 0.27 | -0.06 | 0.29 |
| Cl | 0.22 | 0.52 | **0.75** | **0.72** | 0.52 | -0.24 | -0.09 | -0.33 |
| Br | -0.13 | -0.24 | -0.15 | **-0.82** | 0.001 | -0.34 | **-0.82** | 0.18 |
| Cd | 0.33 | 0.31 | **-0.74** | **-0.60** | 0.10 | 0.55 | 0.31 | -0.01 |
| Cr | **0.75** | 0.63 | -0.49 | -0.18 | 0.02 | **0.73** | 0.36 | -0.13 |
| Ni | 0.34 | -0.34 | **-0.55** | **0.61** | 0.45 | 0.49 | 0.50 | 0.35 |
| Cu | 0.003 | 0.003 | 0.02 | 0.06 | **0.92** | 0.02 | 0.1 | **0.92** |
| Zn | -0.09 | 0.06 | -0.14 | -0.06 | **0.74** | 0.18 | 0.07 | **0.85** |
| Mn | 0.45 | 0.08 | **-0.49** | -0.16 | 0.47 | **0.97** | 0.48 | 0.18 |
| Hg | **0.81** | **0.63** | -0.002 | 0.12 | 0.26 | 0.55 | 0.38 | -0.42 |
| As | -0.11 | 0.17 | -0.23 | 0.22 | 0.24 | **0.56** | **-0.75** | 0.19 |
| Pb | **0.87** | 0.41 | -0.25 | 0.12 | -0.08 | **0.91** | 0.24 | -0.02 |
| THB | **0.95** | **0.89** | -0.07 | 0.1 | -0.1 | 0.41 | 0.19 | -0.11 |
| TC | **0.95** | **0.88** | 0.04 | 0.23 | -0.16 | 0.29 | 0.08 | -0.07 |
| FC | **0.97** | **0.91** | -0.005 | 0.19 | -0.14 | 0.14 | 0.13 | -0.18 |
| FS | 0.40 | **0.80** | -0.04 | 0.36 | **-0.73** | 0.18 | -0.16 | -0.25 |
| Vibrio C | **0.90** | **0.97** | 0.02 | 0.01 | -0.03 | 0.18 | 0.22 | 0.16 |
| E Coli | **0.93** | **0.89** | 0.08 | 0.26 | 0.001 | 0.24 | 0.04 | 0.17 |
| Initial eigen value | 13.12 | 13.66 | 5.48 | 5.47 | 5.34 | 4.92 | 4.3 | 3.53 |
| Percent variance of initial value | 39.75 | 41.41 | 16.60 | 16.59 | 16.18 | 14.90 | 13.02 | 10.71 |
| Cumulative percent of initial eigenvalue | 39.75 | 41.41 | 56.35 | 58 | 72.53 | 72.90 | 85.55 | 83.61 |