Table 1. Water quality parameters variation of Puzi River (site A-B) after rainfall.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling events | Days after heavy precipitation (by East Asian Rainy) | | | | Days after extreme heavy precipitation  (by Typhoon Nepartak) | | | |
| Water quality parameters | Day 1 | Day 3 | Day 8 | Day 12 | Day 1 | Day 3 | Day 8 | Day 12 |
| Heterotrophic plate count (CFU/mL) | 48,067±30,067 | 66,950±37,183 | 953±133 | 1,394±880 | 221,133±188,333 | 948,700±821,900 | 94,866±18,861 | 57,483±12,938 |
| Total Coliform (CFU/100mL) | 16,638±1,356 | 7,358±386 | 3,680±1,284 | 273±94 | 4,068±5,538 | 2,307±1,290 | 1,928±433 | 101±68 |
| *Escherichia coli* (CFU/100mL) | 1,045±307 | 292±4 | 95±57 | 2±2 | 450±336 | 116±104 | 334±150 | 37±20 |
| pH | 7.54±0.04 | 7.67±0.05 | 7.46±0.06 | 7.86±0.04 | 8.18±0.28 | 7.70±0.07 | 7.78±0.17 | 7.63±0.17 |
| Turbidity | 140.80±63.20 | 49.30±19.80 | 54.43±10.62 | 2.84±0.70 | 119.35±54.65 | 17.74±4.85 | 67.00±27.00 | 19.90±5.66 |
| Salinity (%) | 0.28±0.08 | 0.99±0.90 | 0.38±0.38 | 0.95±0.91 | 0.48±0.18 | 0.04±0.24 | 0.18±0.23 | 0.37±0.09 |
| Dissolved oxygen (mg/L) | 5.11±0.01 | 5.04±0.09 | 4.11±0.11 | 3.79±0.10 | 7.51±0.01 | 4.50±0.03 | 3.30±0.04 | 4.03±0.45 |
| Average water temperature (°C) | 26.03±0.10 | 28.05±0.19 | 28.87±0.53 | 29.03±0.19 | 26.05±0.10 | 27.20±0.43 | 29.98±0.12 | 30.03±0.05 |

Table 2. Water quality parameters variation of Dongshing Fishing Port (site C-E) after rainfall.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling events | Days after heavy precipitation (by East Asian Rainy) | | | | Days after extreme heavy precipitation  (by Typhoon Nepartak) | | | |
| Water quality parameters | Day 1 | Day 3 | Day 8 | Day 12 | Day 1 | Day 3 | Day 8 | Day 12 |
| Heterotrophic plate count (CFU/mL) | 111,444±17,674 | 55,278±19,181 | 10,268±2,933 | 5,273±4,390 | 385,900±101,440 | 163,200±66,087 | 14,354±17,991 | 9,200±2,393 |
| Total Coliform (CFU/100mL) | 5,075±1,316 | 5,005±2,151 | 430±222 | 25±8 | 2,417±1,103 | 1,049±543 | 386±98 | 28±11 |
| *Escherichia coli* (CFU/100mL) | 232±25 | 467±145 | 55±11 | 2±1 | 28±5 | 95±36 | 124±49 | 24±21 |
| pH | 7.64±0.13 | 7.45±0.03 | 7.93±0.14 | 7.97±0.07 | 8.05±0.14 | 7.78±0.06 | 7.90±0.06 | 7.96±0.02 |
| Turbidity | 36.97±2.96 | 21.67±4.43 | 11.43±4.15 | 2.11±0.54 | 24.28±2.05 | 12.54±4.85 | 10.64±1.94 | 8.89±2.53 |
| Salinity (%) | 4.65±0.08 | 11.03±0.69 | 15.18±1.46 | 19.90±1.76 | 2.16±0.60 | 1.02±1.18 | 6.63±5.69 | 18.23±0.43 |
| Dissolved oxygen (mg/L) | 5.43±0.14 | 4.81±0.11 | 4.49±0.08 | 4.32±0.23 | 8.89±0.97 | 4.79±0.26 | 3.35±0.79 | 5.82±0.31 |
| Average water temperature (°C) | 26.65±0.02 | 27.01±0.20 | 28.71±0.16 | 29.07±0.48 | 26.08±0.04 | 28.09±0.21 | 29.10±0.26 | 29.77±0.24 |

Table 3. Water quality parameters variation of oyster farms (site F-H) after rainfall.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling events | Days after heavy precipitation (by East Asian Rainy) | | | | Days after extreme heavy precipitation  (by Typhoon Nepartak) | | | |
| Water quality parameters | Day 1 | Day 3 | Day 8 | Day 12 | Day 1 | Day 3 | Day 8 | Day 12 |
| Heterotrophic plate count (CFU/mL) | - | 68,467±26,017 | 32,739±17,049 | 2,806±2,195 | 305,027±166,087 | 1,116,200±995,865 | 26,167±71,941 | 25,499±9,322 |
| Total Coliform (CFU/100mL) | - | 4,359±3,826 | 1±1 | 1±1 | 1,244±1,030 | 477±394 | 11±8 | 43±3 |
| *Escherichia coli* (CFU/100mL) | - | 13±6 | 8±3 | 0 | 27±85 | 44±19 | 0 | 16±7 |
| pH | - | 7.70±0.08 | 7.63±0.15 | 7.85±0.11 | 8.10±0.06 | 7.62±0.05 | 7.98±0.02 | 7.75±0.11 |
| Turbidity | - | 14.26±2.31 | 6.93±4.69 | 0.80±0.05 | 43.62±25.89 | 57.58±37.15 | 49.23±2.12 | 9.57±5.61 |
| Salinity (%) | - | 10.98±3.97 | 16.03±2.53 | 21.34±1.61 | 5.25±2.04 | 1.88±0.09 | 18.05±6.31 | 22.32±0.68 |
| Dissolved oxygen (mg/L) | - | 4.36±0.14 | 3.97±0.16 | 3.29±0.17 | 5.81±0.36 | 4.21±0.37 | 6.45±0.25 | 4.29±0.44 |
| Average water temperature (°C) | - | 29.02±0.06 | 29.11±0.14 | 29.75±0.21 | 26.11±0.03 | 26.42±0.15 | 27.98±0.39 | 28.08±0.21 |